Clinical Lectures
ON
LISTER'S TREATMENT OF WOUNDS AND ABSCESSES BY THE ANTISEPTIC METHOD.

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LECTURE I.

GENTLEMEN,—As many of you are aware, I am endeavouring at the present time, with Mr. Vernon's assistance, to carry out Mr. Lister's method of treating wounds antiseptically, and as some of you may be interested in the result, I propose in this lecture to explain, as briefly as I can, the theory upon which Lister's antiseptic treatment is based, the facts from which that theory is adduced, and the advantages Mr. Lister claims for the plan.

I shall not at present give the results of my experience, nor shall I now express any opinion as to the merits or demerits of this treatment. I would rather wait until a fuller experience justifies me in speaking with some authority.

In taking up a subject of this kind it is very difficult to avoid a spirit of partisanship, since on the one side there are surgeons whose opinion is entitled to respect who are opposed to the system, either on *à priori* grounds or in consequence of an unfavourable experience of its results; and on the other side are ranged those who have come to an opposite conclusion, and mostly after having put the plan to a practical test.

Under existing circumstances I should advise you to form your own independent opinions from your own observation of results. I intend to do so, and I propose to give the plan at least one year's trial, employing the treatment especially in what may be called test cases; I mean in cases where the antiseptic method is fairly put on its trial, and where an opportunity occurs for such advantages as it is said to possess to become plainly apparent.

There are two preliminary conditions which Mr. Lister has a right to demand of those who profess to make trial of his system: first, that they should at least provisionally accept his theory; secondly, that they should know what his practice is, and should carry it out even to the minutest particular. They must provisionally accept the theory, or the details of the practice will in some respects appear so frivolous that they are sure to be occasionally neglected; while if the soundness of the theory be accepted, it will be seen that the observance of these details is thoroughly reasonable. Mr. Lister has a right to insist that those who profess to give his practice a fair trial should observe its minutest details, since no one can be truly said to carry out Lister's plan who stops short in the execution of details prescribed by the author as necessary to success.

Now, in order to fulfil the first condition, I have, for the present at least, agreed to accept Mr. Lister's theory (what it is I will tell you directly). And lest I should fail in the second through a want of knowledge, I visited Edinburgh myself last summer, and had the advantage of personal instruction from Mr. Lister himself; and subsequently my house-surgeon, Mr. Vernon, was good enough to stay there for a time, when both Mr. Lister and Mr. Annandale gave him every opportunity of learning the practice of antiseptic surgery. These gentlemen not only succeeded in teaching Mr. Vernon the details of their treatment, but happily fired him with the enthusiasm necessary to carry them out with a good will on his return to London. Whatever may be the result of antiseptic surgery in my wards, I shall remain very much indebted to Mr. Lister, Mr. Annandale, and Mr. Vernon.

The theory, or, one may now say, the facts on which Mr. Lister's antiseptic treatment rests are as follows:—

1st. That in the dust of the atmosphere, and on matter with which it is in contact, there are the germs of minute organisms which, under favourable circumstances, induce putrefaction in fluids and solids capable of that change, in the same manner as the yeast-plant occasions the alcoholic fermentation in a saccharine solution.

2nd. That putrefaction is not occasioned by the chemical action of oxygen or any other gas, but by the fermentative agency of these organisms.

3rd. That the vitality or potency of the germs can be destroyed by heat, and by various chemical substances, which we call, in surgery, "antiseptics."

Now, I am not going to ask you to believe these statements on my authority, but I will shortly refer to the results of experiments performed by Pasteur, Lister, Sanderson, Tyndall, and others, which justify the above conclusions.

It is scarcely necessary to state that organic fluids, like milk, urine, and blood, infusion of meat, &c., if kept in contact with the air at ordinary temperatures, will ere long decompose or putrefy, and will give evidence of putrefaction by turbidity (if the fluid be originally clear), by the evolution of offensive gases, and by the development within them of bacteria.

Again, I need do no more than remind you that prolonged boiling will not of itself preserve such fluids from putrefaction. Yet any of these or similar fluids may be kept free from putrefaction for an indefinite time, in spite of free access of the atmospheric gases, provided that the fluid has been boiled at the outset to destroy any organisms in it, and that the vessel containing it has been thoroughly purified by heat, and that the dust of the air is excluded. The exclusion of the dust may be effected in various ways. In some of Pasteur's first experiments it was done by having the neck of the flask which contained the liquid drawn out by aid of heat into a fine tube bent at various angles, in which form, though open at the end, and allowing perpetual entrance and exit of air, it arrested all particles suspended in it, and the urine or other fluid which was the subject of experiment remained permanently unaltered. Or, again, the same object may be attained by having the mouth of the flask plugged with a mass of purified cotton-wool, which effectually filters of its dust the air that enters the vessel in consequence of the condensation which alternates with expansion in the diurnal changes of temperature. But if the neck of the flask is broken short in Pasteur's experiment, or the plug of cotton-wool removed, organisms are sure to show themselves before many days have passed. Even more striking is the method adopted by Mr. Lister, who decants the boiled organic liquids into wine-glasses purified by heat, and each covered with a glass cap similarly purified and a glass shade, scrupulous care being taken to avoid the entrance of dust during the process of decanting. Neither cap nor shade fits closely, so that a constant interchange takes place between the external air and that in the wine-glass, yet the double protection afforded by the cap and shade effectually excludes dust, and the result is, that although the organic liquids gradually diminish in bulk by evaporation, and in the course of months dry up altogether, no organisms make their appearance from first to last, nor does putrefaction or any other fermentative change occur. If, however, the glass shade and cap are removed for a few minutes and replaced, fungi or bacteria soon show themselves. But he has found that if the glass cap be only lifted for a second or two in an ordinary apartment free from draughts there is practically no risk of the entrance of any organism in the short period of exposure.

Further, it has been shown by Pasteur and other observers that it is by no means essential to the success of such experiments that the organic liquids should be boiled, but that when circumstances admit of their being withdrawn uncontaminated from their natural receptacles, such as the urinary bladder, the bloodvessels, the udder of the cow, or the shell of a fresh-laid egg, they will remain free from organisms and from putrefaction when kept in pure vessels and protected from dust.

It has also been discovered that impure air will purify itself by mere subsidence of its dust. Pasteur long ago proved that putrescible fluids could be kept free from putrefaction in air taken from cellars free from draughts, when the solid particles of the atmosphere had had time to deposit themselves by subsidence; and Prof. Tyndall has recently subjected air purified by being kept at rest to very

searching tests to ascertain if it will excite putrefaction in putrescible solutions. He has found that solutions of meat, cheese, turnip, &c., first subjected to a high temperature, can be kept free from putrefaction for an indefinite time exposed to the air-closed boxes that have been kept at rest a day or two, to allow the dust to subside, precautions being taken to prevent the said dust rising again by coating the inside of the box with glycerine. The same experimenter has demonstrated the fact that the air which has been thus rendered incapable of exciting putrefaction—i.e., aseptic—is also optically pure: that is, that there are no particles or motes to be detected in it when illuminated by a beam of electric light in a darkened room.

I think, then, we are justified in concluding that in the dust of the atmosphere there *are* such things as fermentative particles, organisms, germs, or whatever you like to call them, and that these, under favourable circumstances, induce putrefaction in fluids and solids capable of the process; that without these germs putrefaction and the formation of bacteria does not take place, and, finally, that these germs can be destroyed or removed from the atmosphere by the various means that I have above described.

Let me here remark, as having an important bearing upon Mr. Lister's practice, that in the case of those fluids that have been kept free from putrefaction by any of the above described means, the addition of the smallest drop of ordinary water, or the contact of a glass rod that has not been specially treated to render it aseptic, will almost certainly excite putrefaction, though all other prescribed conditions are scrupulously carried out to prevent its occurrence.

On the other hand, Mr. Lister has found that when any portion of apparatus used in investigations on this subject cannot conveniently be purified by heat, the object may be attained by washing the glass or other material with a strong watery solution of carbolic acid, and drying it with a carbolised rag, and in the course of a long series of experiments he has invariably found this antiseptic agent as efficacious as the flame of a spirit-lamp in preventing the growth of organisms and the occurrence of putrefaction.

Mr. Lister's object in the treatment of wounds and abscesses is to exclude from them these germs or organisms that float in the atmosphere and are the causes of putrefaction, and the means he employs for effecting this purpose he recommends, not as the best that can be used, but as the best that he has been able up to the present time to devise; and although Mr. Lister considers the truth of his theory incontrovertible, yet he does not claim to have brought his practice to perfection.

Mr. Lister claims for his plan that when it can be carried out with due care and proper observance of details, he can, as a rule, secure that an open wound should heal after the manner of a subcutaneous injury—that is, without inflammation or constitutional fever, and for the most part without suppuration; while, if suppuration occurs, he secures that it shall not be putrefactive—that is, accompanied by the changes that we consider evidences of putrefaction, such as the formation of bacteria and the evolution of fetid gases.*

In the treatment of abscesses by the antiseptic method, Mr. Lister believes that he has effected an entire revolution in the course of the disease after the cavity has been opened, and to this I will more particularly allude in my next lecture. But I may here mention that, along with many local advantages, the patient is said to be free from all danger of irritative fever as the immediate consequence, and from hectic at a later stage.

I said that these advantages are claimed for the antiseptic method when it can be carried out with due care and a proper observance of details—that is to say, in cases where the surgeon himself inflicts the wound on an unbroken skin; for in this case he can protect the part against the entrance of putrefactive ferments, whereas when sinuses have formed, or when a wound has been some time exposed to the air, abundant sources of putrefaction already exist in the wound or abscess; nor is there at present any means by which, under these conditions, they can with certainty be all destroyed. You can thus understand how it is that Mr. Lister considers himself sure of success where he applies his treatment to an abscess which he himself opens, or to a wound he has made, and that he would generally expect success when dealing with a recent compound fracture or wound into a joint; whereas he would scarcely be disappointed at a failure if he applied his treatment to a case where sinuses already existed, or where an open wound had long been exposed to the air.

I must state these things explicitly to you in justice to Mr. Lister, that you may judge fairly of the results of the antiseptic treatment, understanding what it cannot do, as well as knowing the advantages claimed for it by its author. It is also only just to Mr. Lister, and essential, in order to enable you to form a fair estimate of the results of his method, to remember that he is far from regarding putrefaction as the only cause of suppuration. On the contrary, he has long since pointed out that any antiseptic substance, such as carbolic acid, if applied continuously to the exposed tissues of a wound, stimulates them to granulation, and the granulations to the formation of pus, giving rise to what he has termed "antiseptic suppuration," due to the direct chemical stimulus of the antiseptic. He has also expressed the belief that putrefaction acts in a precisely similar manner in causing suppuration, the products of putrefaction being acrid chemical substances; but that there is this all-important difference between the two cases—that the antiseptic acts only on the part to which it is applied, whereas putrefaction, being a fermentation, extends itself into all the recesses of a wound or abscess, where blood or sloughs, pus or serum, affords a nidus for the development of the bacteria. Further, Mr. Lister has directed attention to the important truth that suppuration, besides being brought about in this manner by the direct stimulus of chemical irritants, may be produced by ordinary inflammation without the access of any external disturbance, putrefactive or otherwise, as in the familiar case of an ordinary deep-seated abscess, the contents of which when evacuated are free from putrefaction. This ordinary inflammation he believes to be due to excited nervous action, and the commonest of all causes of it in surgical practice is tension, occasioned by blood or serum being pent up within the cavity of a wound; and he has insisted upon the fact that, in consequence of the irritating influence of the antiseptic material in the spray and sponges, the sanguineo-serous discharge is greater in the earlier periods from a wound treated antiseptically than from one managed in the ordinary way. Hence it is doubly necessary to provide free escape for this serous effusion, which is done by means of drainage-tubes; and if these be neglected or inadequate, tension will inevitably result, with corresponding inflammation, and in due time suppuration. Lastly, we must bear in mind that inflammation caused in this manner by tension, like any other ordinary inflammation, will be attended in proportion to its intensity by constitutional disturbance or fever.

If, therefore, we see suppuration make its appearance, or inflammatory disturbance and febrile excitement, in any case treated antiseptically, we need not necessarily infer that the antiseptic method is at fault until we have seen if we can discover some cause, other than putrefactive, which may account for the phenomena.

It will be obvious to those of you who have followed me thus far, that though all that I have stated may be absolutely true in theory, and though Mr. Lister's practice may be thoroughly sound in a chemical sense, yet pathologically it may be unsound. I mean that the antiseptic treatment may succeed in preventing the occurrence of putrefaction and the development of bacteria in wounds and open abscesses, yet this freedom from putrefaction does not necessarily imply an absence of local inflammation and constitutional irritation. Now this is what I want you especially to observe for yourselves: first, if the secretions of wounds and abscesses treated antiseptically are free from putrefaction; and secondly, if, together with this absence of decomposition, you have an absence of local inflammation and constitutional fever—other sources of these conditions being excluded.

That you may judge of these things the better and more certainly, I use the antiseptic method to those cases which, under ordinary treatment, are specially liable to local manifestations of inflammation, and are generally the sources of well-marked constitutional disturbance. I have not used the plan in ordinary amputations, removals of the breast, tumours, operations for hernia, nor in the treatment

* The local advantages, if secured in individual cases, must of course affect the general salubrity of a hospital. On this subject see The Effect of the Antiseptic Treatment on the General Salubrity of Surgical Hospitals, by J. Lister, F.R.S., Brit. Med. Jour., 1875, vol. ii., p. 769.

of acute superficial abscesses, for in these the result of surgery in a healthy hospital is usually satisfactory; but in resections of large joints, in wounds of joints and compound fractures, in deep abscesses, and especially in chronic abscesses connected with joint disease or caries of bone.

In judging of the results of the antiseptic treatment in our hands, I must beg you to bear in mind the facts which were published by Prof. Tyndall in January last. I must ask you to observe that even in the chemical laboratory there are difficulties to be overcome and minute details to be observed in order to obtain uniform results; and that, even in the hands of masters of the art, notwithstanding all care, sources of error will sometimes occur, and a fallacious result be obtained. Now, if this be the case under the circumstances I have referred to, how much more difficult must it be to carry out the necessary details when beginners like ourselves are dealing with the living tissues of the human body.

NOTES ON ASYLUMS FOR THE INSANE IN AMERICA.

BY JOHN CHARLES BUCKNILL, M.D., F.R.S.

(*Continued from p. 419.*)

BUT I must not further delay to endeavour to make it apparent whereabouts the Americans are in their opinions and practice.

The discussion at Nashville was mooted upon an able paper by Dr. Ramsey, and it was concluded by the President declaring that the members of the Association were "essentially a *unit* upon the question as presented by Dr. Ramsey." This, however, was not quite correct, for an Abdiel was found in Dr. Lett, of Canada, who boldly declared, "So far as my experience goes, I think this is simply a question between good attendants and restraint." Dr. Worthington also came very near to rebellion against the law of the majority when he asserted that in his asylum, the Friends' Asylum at Philadelphia, "since the use of mechanical restraints has been almost entirely discontinued there has been far less trouble in the management of the patients." The unanimous opinion of the remaining members of the Association seems to be expressed in the following words of Dr. Smith, superintendent of the State Asylum, Mo. "This question has been very freely discussed at previous meetings of this Association, and the result was almost entire uniformity of sentiment in all well-conducted American institutions for the insane. No restraint is the general rule, and restraint the exception; while for many years past the tendency in this country has evidently been to reach the point of least possible restraint, *there have been very few if any converts to the non-restraint system in the true sense of the term.*"

This being the position taken, I shall endeavour to show by their own declarations what the superintendents of the State asylums consider the least possible amount of restraint and the description of cases in which they think themselves justified in employing it.

Dr. Orpheus Evarts, of the Indiana Hospital for the Insane, said: "I think we are all agreed; but the question seems to be how much and what kind of restraint is required? I know of no other object in sending these persons to an insane hospital than that of proper restraint.....When I assumed charge of the Indiana Hospital I found perhaps *fifteen per cent.* of the patients wearing some kind of mechanical restraint. I have reduced the ratio to not far from *two per cent. Below that I find it impracticable to go.*"—Dr. Green, of the Georgia State Asylum, said: "I do not think that all the restraints we employ amount to two per cent. per annum with our 560 patients. I certainly concur in the positive and absolute necessity of personal restraint." Dr. Green said that he applies mechanical restraint to four different classes of patients—namely, (1) to suicidal patients, (2) to "persons who will not remain in bed," (3) "to persons who persistently denude themselves of all clothing," and lastly (4) "to the inveterate masturbator."—Dr. Ramsey, after mentioning that Dr. Bell had reduced restraints in the M'Lean Asylum to less than one per cent. so long ago as 1839, said: "Have we not sometimes fallen below it on a plea of economy, or through a willingness to shirk the unceasing, patient, and thoughtful attention a large number of patients in hospital need, and thus brought upon ourselves and the institutions under our care the odium and the pernicious legislation that seem to have sprung out of, or at least to have closely followed, some sharp criticisms in recent publications, and the acrimonious utterances of intense humanitarians, or persons whose mental integrity is at least questionable? And to just such results shall we be ever in danger so long as restraint may be deemed necessary, unless with unceasing vigilance we guard against the abuses which with its use are exceedingly liable to creep in." A very remarkable passage this, as reasonable as it is forcible and eloquent. Dr. Ramsey thinks that mechanical restraint is "a valuable, if not indispensable, auxiliary in the treatment"—(1) of "cases of acute mania characterised by violent destructive and mischievous propensities"; (2) in patients "who wound themselves, creating ulcers that would never heal themselves, unless their hands were confined"; (3) "it is the only safe course in guarding against the dangerous violence to which the epileptic insane are often liable"; (4) "persons whose feelings are greatly perverted—exceedingly irascible—prone to see insults, or evidence of conspiracy—are sometimes little less ferocious than wild beasts, and feel little or no regard for human life.....for them seclusion or restraint, for varying periods, seems to be necessary, and, for a small portion of this class, *almost continuous*"; (5) "how shall we treat that so frequently fatal disease, acute delirious mania, if we do not apply restraint to secure recumbency?" It will be observed that none of the five classes enumerated by Dr. Ramsey as requiring restraint tally with those of Dr. Evarts, so that already we have nine classes of lunatics who need mechanical restraint in America. Dr. Slusser, of the Ohio Hospital for the Insane, adds to the number. "I have met with a class requiring restraint not alluded to by the writer, Dr. Ramsey. I refer to those who persistently walk or stand until their extremities become swollen, and they give evident signs of physical prostration. I have no way of controlling such but by tying them down on a seat. If there is any less objectionable mode, I should like to know it. Then we have a class of noisy patients, harmless in every other respect, but so loquacious and boisterous that they disturb the whole ward." With this climax we might well conclude this astounding classification, did not other superintendents in their remarks afford us the means of adding to it: for instance, patients needing forced alimentation (Dr. Curwen), patients who butt their heads against the wall (Dr. Forbes and Dr. Kilbourne), and delusional cases, who are very quiet, then suddenly rise up and make a violent attack upon somebody (Dr. Carriel)—*fourteen classes of the insane altogether who absolutely need mechanical restraint in the State asylums of America*, according to the opinions and practice of their medical superintendents. It would be interesting to know how many classes of the insane our American brethren can reckon who do not require this indispensable means of treatment.

It would be tedious and useless to discuss the need in all these classes with the intention of showing by what means in England patients included in them would be treated without the use of strait-waistcoats, muffs, camisoles, or locked chairs: are they not written in the pages of THE LANCET in the days of the last generation? I shall, however, as an example, take the remarks made upon one class—namely, those patients who denude themselves or destroy their clothing—to indicate the lack of resource, which is one cause of all this employment of restraint. We know, by long and large experience, how easy it is to allow a lunatic perfect freedom of all muscular movement and yet to prevent him from stripping himself, or from destroying his clothing, by the employment of outer clothes so fashioned that he cannot remove them, and so strong that he cannot easily destroy them. This, with some care on the part of the attendants, is a perfect and facile remedy. Yet Dr. Curwen says: "When patients are obstinately bent on destroying their own clothing or that of others, it is safest and best to confine their hands." Dr. Eastman says: "At the Worcester Hospital there are a large number of chronic cases, who are

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very destructive and prone to denude themselves, and I am obliged to use a good deal of restraint on these accounts." Dr. Shaw says: "I think we have all these cases—a persistent desire to destroy clothing particularly. No harm can come from restraint in either of these cases if properly used, but, on the contrary, much good may be done." Dr. Carriel says: "Then there is a class that denude themselves and tear their clothing, when restraint or seclusion becomes necessary." Dr. Green says: "In the case of persons who persistently denude themselves of all clothing, I think it better to put them under restraint than to keep them in their rooms, and accordingly I restrain also that class of patients."

May we not ask, where is the wonderful ingenuity and inventive resource of the country if its skilled physicians allow themselves to be so easily defeated by the caprice of madmen who are so readily managed elsewhere? And so we might go through all the classes, were it worth while to repeat a thrice-told tale, and were not the great book of practical exposition worth infinitely more than all which language can convey—a book held open in this country from end to end, with men of large experience and skill, eagerly desirous to turn its pages to every earnest student, and in no spirit of arrogance or self-sufficiency, but in the truest desire to show a straighter path and a higher aim in a great department of the great art and science of healing.

Is it surprising that, at the present time, the management of asylums for the insane in America is the subject of mistrust with the people? The Americans, who are about the best informed, most inquisitive, and widely travelled people in the world, are not likely to be ignorant of the treatment of the insane in other countries, nor to be satisfied with the assurances of an official class that the most enlightened and advanced system of treatment is inapplicable in their own country. The result is a state of public feeling which is well expressed in the quotation which I have already made from the paper of Dr. Ramsey, and which was repeatedly recognised by many speakers in the debate. Flowery words break no bonds; and such high-faluting assertions as that "in any comparison of the treatment of the insane in different countries we can but look with pride upon the advanced humanity of our own," must have been felt by Dr. Ramsey somewhat insincere when he uttered it just after the avowal that "the use of mechanical restraint has divided professional opinion in this country, and has deeply stirred public sentiment from time to time, and perhaps has been the cause of much of the popular odium that has been cast upon hospitals for the insane and their directors in some quarters." Sooner or later he and Dr. Curwen will find that the public demand for the abolition of mechanical restraint is no "hue-and-cry of a sensational character," nor "a strong public opinion based more upon feeling than upon knowledge." The Americans are not a people to whom this taunt is likely to apply justly for any length of time, even if it be partially true at the present time, which the successful resistance of the superintendents would seem to make probable. When full knowledge comes either to the latter or to the public, they will have to vacate this untenable position.

At the meeting of superintendents held in 1875 the discontent and distrust of the public with the management of the American asylums were still more emphatically expressed. The debate was upon a project of law, proposed by a Mrs. Packard, that locked letter-boxes, under the control of the Post Office, should be placed in each asylum ward. This law, going so far beyond our own (25 & 26 Vict., cap. iii., sec. 40), which works perfectly well, would no doubt be most objectionable; but the reasons given by the superintendents for opposing it manifest the deep mistrust of which they are conscious. One asserted: "It seems to me an unquestionable fact that during the last few years American institutions for the insane have been, and perhaps still are, on trial before an alarmed and prejudiced public." Another, and no less an authority than Dr. Isaac Ray, forgetful of the difference between a sane and free man suffering from sickness in his own house and a lunatic incarcerated in an asylum, lays down the following proposition against the establishment of a central authority:—"If the time shall ever come when the Legislature, in its zeal for the public good, shall establish a board of officers to supervise the medical practice of the State, with power to enter every sick man's chamber, to inquire respecting the medicine and diet prescribed and any other matter connected with his welfare, and report the results of their examination to the constituted authorities, then it may be proper to consider the propriety of extending the same kind of paternal visitation to the hospitals for the insane." Dr. Ray thinks that the free and independent action now possessed by the officers of asylums ought not to be disturbed by the intrusive element of official visitation. We do not find in England that the free and independent action of our superintendents of asylums is much disturbed by the visitation of the Commissioners in Lunacy, but we do enjoy the advantage thereby that no one shall greatly lag behind the knowledge and science of his time in the treatment of his patients without his shortcomings being investigated and published, and the great additional advantage that the general management of our asylums possesses the full confidence of the public.

With regard to the constantly repeated proposition of American superintendents, that they maintain and defend the use, but not the abuse, of mechanical restraints, I have only to remark that the use of such restraint must always be an abuse whenever and wherever it may be avoided or substituted by a more skilful mode of treatment, inflicting less suffering upon the patients; and that, at the present day, the extent to which this can be effected is not a matter which the Americans must be left to discover for the first time from their own experience, since a very moderate amount of honest investigation in this country and on the continent must convince any candid mind that the proportion of lunatics on whom restraint cannot be so avoided is extremely small.

Our American brethren tell us, indeed, that there is some wonderful peculiarity in the American character, which distinguishes it from that of the parent race in the old country in preferring the restraint of instrumental bonds to that of moral influence. President Dr. Walker assured his hearers that this was so. He said: "I suppose if anything has been settled to the satisfaction of the members of this Association it is that, in this country, our patients, by *original temperament*, or by some inherent quality in the *universal Yankee*, will not submit to the control of any person they consider their equal or inferior as readily as to that of mechanical appliances." Dr. Compton also said: "I think an asylum cannot be found in this country, where the first thing a boy learns to read is the Declaration of Independence, and where every youngster learns that he is 'in the land of the free and the home of the brave,' in which restraint will not be found necessary." I shall only remark that the same argument was in the early days of this debate used by the physicians of Germany, as Griesinger states with unsuppressed contempt. And even in Scotland it was said that the *perfervidum ingenium* of its people made many of the insane there only capable of being treated like wild animals.

With regard to the English, I may observe that the non-restraint system has been practically found to be well adapted to the treatment of the insane of the upper classes, who are as free from the imputation of servility and submission to beadledom as the glorified citizens of America can themselves be.

It can, however, scarcely be doubted by those who know even a little of America that the "inherent quality" attributed to the "universal Yankee" of peculiar resistance to moral influences and rebellion against kindly and sympathising treatment is an unjust and unfounded libel upon him. The average American, of the agricultural artisan and labouring classes, may possibly hold himself somewhat more stiffly on his manhood and citizenship than the subjects of Queen Victoria of equivalent estate, though we somewhat doubt the fact; but without doubt he is, as a rule, more instructed, intelligent, and self-respecting. Any Englishman who has mixed in American mobs, as I have done, will have been astonished and somewhat humiliated at the absence of the "rough" element in them, at the self-respect, regard for the rights of others, and, above all, at the sobriety which he has witnessed. And if he has taken the trouble to inquire, he will find that the dirtiest and poorest-looking man he has encountered has received what we should consider almost a liberal education. If he looks through the police reports he will be struck with the absence of those brutal assaults upon women and children and feeble persons which are the present reproach of our

most imperfect civilisation. If he has had the privilege of knowing many Americans at their own hearths, or perhaps I should say stoves, he will have become convinced that the influences of politics, *societetics*, and climate, have resulted in the production of a most kindly, friendly, and orderly variety of the Anglo-Saxon race, full of domestic affections and social sympathies, peculiarly liable to be led by moral and reasonable guidance. And these are the men for whom the American physicians declare that bonds of hemp and iron are absolutely indispensable in the treatment of their mental maladies, while for the rough Englishman, the *dour* Scot, and the *hartnackig* German, they have been proved to be both superfluous and mischievous!

I should hesitate to declare that all races were equally fit for the non-restraint system, and perhaps a house full of maniacal Malays or Kaffirs would be troublesome to manage by moral and reasonable methods. The essence of the non-restraint system is to lead the lunatic by such remains of mental power and coherence as the physician can lay hold upon, and where there has been least mind there will be the slightest means of moral guidance; but to make the men of the United States an exception because they, more than others, have learned how to rule themselves, is a blundering censure upon their culture and their virtues.

Moreover, if American patients are independent, ingenious, and bold, and therefore not easily guided and controlled, are not the physicians Americans also, and being possessed of the qualities of their race, do they not stand in the same relation to their patients as the physicians of other countries to their insane countrymen? Do they not possess the same advantages of courage, culture, and experience, and above all, that of a sound mind in a sound body, which qualifies them to undertake the care and treatment of their compatriots who are bowed down by mental infirmity and frequent physical disease? Verily we believe that this spread-eagle apology for the bonds of freemen is the most feeble, futile, and fallacious which could possibly be imagined. Another, however, which is worse, I shall leave unanswered, because it does not seem worthy of an answer. It is this, that because in the treatment of insanity certain medicines are useful, and are, so to say, a restraint upon abnormal changes in the organism, therefore the restraint of locked chairs and strait-waistcoats is justified. When such an argument is used, as it was by Dr. Hughes, of St. Louis, the quiver of the logician must be about empty.

Finally, I must make an apology myself for the uncompromising manner in which I have criticised the utterances and opinions of my professional brethren in this matter. I am seriously afraid that it will cost me some good will in quarters where I most earnestly desire to retain it, and if this were not a question of the highest principle with me, on which I should not hesitate to sacrifice, if need be, the most cherished friendships, I would most willingly have been silent, or have spoken with bated breath. But that the American nation, whom I have learnt to know only to respect and to love, should remain under the incubus of this professional prejudice; that the American superintendents, among whom I count some of my dearest friends, should lag lamentably behind the science of their age; that the greatest reform in the treatment of mental disease, inaugurated by and among Anglo-Saxons, should be bounded by national barriers, and denied to the largest community of the Anglo-Saxon race, this I could not sit down with a quiet conscience silently to think upon. Far be it from me to dogmatise my psychiatric colleagues in the United States; but I may be permitted earnestly to entreat them to take a wide and general view of their position in their own social surroundings, and in the wide world of science. My fervent hope for them is that by doing so they will decide to cast behind them a narrow prejudice, and thus be able to reinstate themselves in the front ranks of practical philanthropy, and in the confidence of their compatriots. They are men, as I most willingly testify, animated by the highest motives of humanity, but ignorant and mistaken in their application of means to the furtherance of that great end to which we all press forward—namely, to the care and cure of the insane with the least amount of suffering. That they will do this without much delay I very confidently predict; that they will sink five fathoms deep their bonds of hemp and iron; and bring "medicine to a mind diseased" only in the shape of medical and mental influence; that they will jealously guard the enjoyment of all innocent freedom for their patients, and all possible publicity in the management of their institutions, I feel as sure as that they and their countrymen are destined in the ages to be our own great rivals in the race of social and scientific progress in this and in all other matters. In a few years they will look back upon their utterances in defence of mechanical restraint with the same wonderment with which they may now regard all that has been said in defence of domestic slavery, but with no wounding recollections of war and conflict, and then they will forgive me or my memory for that I have written the above words which may perchance have hastened this happy change.

(To be continued.)

NOTES OF A

CASE OF FUNGUS OF THE DURA MATER;

WITH REMARKS.

BY JAMES F. WEST, F.R.C.S.,

SENIOR SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

EMMA F——, aged forty, was admitted into the Queen's Hospital on Nov. 18th, 1875, under Mr. West. The patient had been married twenty years, and had nine children, and one miscarriage; four of her children are dead; three died in infancy, from three to four months old. She has been accustomed to carry bricks on her head, having worked in a brickyard. There was no history of any particular blow on the head, but she has been knocked about a good deal with fists by her drunken husband. She states that she suffered from what was called rheumatic fever by a medical man last January, but no pain or swelling of any joint occurred, although at that time there was very severe pain in the head, and she noticed three painful lumps rise on her head: one in each temporal region, and one in the right parietal region. Those in the temporal region soon disappeared, but that in the parietal became more swollen, painful, and tender, and was opened by her medical attendant, when a large quantity of matter escaped, and the wound has continued to discharge pus ever since.

Six weeks ago pieces of dead bone began to come away, and on Monday, Nov. 22nd, Mr. West removed a shell of necrosed bone nearly an inch square involving the entire thickness of the skull, which he found standing out from a ragged, elevated ulcer on the scalp; two smaller pieces were removed from the edges of the wound, leaving a pulsating mass protruding from the interior of the cranium, about the size of a walnut, more or less globular in shape, and presenting all the characters of a hernia cerebri, except that the pulsation was not synchronous with the respiration. There were exuberant granulations around the edge of the wound, and marked tenderness and swelling of the surrounding scalp.

The patient is fairly well nourished; face somewhat florid, with enlarged capillaries. She states that she lost flesh from the commencement of her illness up to four months ago, when she was so feeble as to be unable to walk across the room; since then, however, she has gained flesh and strength, and now feels quite well, with the exception of occasional headache, not severe, and worse in the morning; eyesight failing slightly during the last five or six weeks; no difference in size of pupils; no numbness or twitching in the limbs; no change in intelligence or loss of memory. No history of syphilis can be elicited.

On Monday, Nov. 29th, Mr. West had the patient put under the influence of ether, and made three exploratory radiating incisions through scalp, so as to expose the bone in the neighbourhood of the tumour. He removed several pieces of necrosed bone, and discovered a hole in the cranium about one inch square, through which a fungating tumour passed, which seemed to spring from the dura mater.

The patient went on well after the operation, and on Dec. 6th Mr. West ordered a well-padded mould of gutta percha to be applied over the tumour, so as to exercise moderate pressure upon it. This was well borne, and about

the 27th December the tumour had disappeared, and had cicatrised over. About this time, however, she began to have occasional numbness in the extremities and loss of speech, and on the evening of Dec. 27th she had a fit, in which she lost consciousness; had right-sided convulsions, the right arm being twitched and the hand turned inwards; there was also rigidity of the right leg, twitchings of the facial muscles, and some dilatation of the right pupil. In the next few days the fits became more frequent, at first left-sided, and afterwards general, and she died comatose on Jan. 2nd, 1876. No rise of temperature took place till the last two days, when it rose to 102°.

A post-mortem examination was made on Jan. 4th. Scalp stripped off and brain removed by Hutchinson's method. No meningitis; no effusion along the course of the vessels, but great congestion of the meninges and of the brain-substance. Three or four flat hard nodules in the dura mater covering the right hemisphere, about half an inch thick, flattening the convolutions beneath, and causing absorption of the bones of the skull on which they pressed. No protrusion from the aperture in the cranium; the brain-substance came up to the surface of the scalp, and was only covered over with a thin cicatrix. On the internal surface of the right parietal bone, around the opening, the brain and thickened dura mater were incorporated together, and were adherent to the margin of the bone. The aperture in the right parietal bone was ragged and irregular in shape, two inches in length by one in width. On the outer surface of the frontal bone, about an inch in front of the parietal opening, there was erosion over a space as large as a shilling, and a sequestrum of the tabula crassa was beginning to separate. Deep and disseminated in the substance of the liver, five or six round masses, as large as a walnut, were found, which, with those in the dura mater, presented all the microscopic characters of scirrhus. The lungs, heart, kidneys, and uterus were healthy, and there were no enlarged abdominal glands.*

Remarks.—Fungus of the dura mater is not very uncommon, but its insidious approach, and the difficulties attending its pathology and diagnosis, induce me to place this case on record.

Pathologists differ as to the exact category in which such tumours should be placed, as to whether they should be considered as simply fibro-plastic or as cancerous growths. I incline to the opinion that this was a cancerous growth, from the general and microscopic appearances it presented; and I prefer to call it scirrhus from its hardness, the abundance of fibrous material in its structure, its not being very vascular, and from analogous tumours existing simultaneously in the substance of the liver.

Considerable variety of opinion also prevails among those who have written on this subject as to the starting-point of the disease: some authors—as Louis and Chelius—assigning the dura mater as the part from which the disease springs; others, as Siebold, thinking that cancer may arise in the diploe; while Mr. Oliver Pemberton, in his "Clinical Illustrations of Cancer," narrates the case of a woman, aged twenty-seven, in whom the cancer originated in the compact tissue of the cranial bones.

Rindfleisch, one of the most eminent of modern German pathologists, gives the following sketch of the growth and progress of this disease:—"The fungus of the dura mater springs from the outer surface of the membrane, forces its way along the vessels into the compact tissue of the bone, destroys the tabula vitrea, extends somewhat less actively in the diploe, but ultimately perforates the outermost compact layer of the cranial bones, protruding as a fungoid tumour and pushing the scalp before it. Not unfrequently, too, it extends inwards through the dura mater, the opposed surfaces of the arachnoid are glued together, and then a fungus of the pia mater becomes associated with that of the dura mater."†

A very good account of these tumours is given by Mr. Lawson Tait in a paper entitled, "On the Variety of Peri-osteal Disease of the Skull generally known as Fungus of the Dura Mater," published in the *British and Foreign Medico-Chirurgical Review* for January, 1870. It contains a good *résumé* of the cases recorded by various authors, and concludes:—"These tumours may be regarded as homologous, according to Virchow's recent definitions in his lectures on tumours. They originate in the layers of osteal cells, and are composed of those cells altered in appearance and degenerate in function. When, together with the altered histological characters, the clinical history of the tumours is considered, they ought to be ranked among cancerous diseases." The appearance presented by the cranial bones in my case certainly tends to confirm Mr. Tait's opinion as to the disease originating in the osteal cells, for the outer layer of the skull was superficially eroded over the space of a square inch in front of the spot where the actual perforation had taken place, while the corresponding portion of the tabula vitrea and the subjacent dura mater appeared unaffected by the cancerous disease; at that point, at any rate, there could have been no pressure from within, and yet the bone was softening down in such a way that probably before long a second opening into the cranium would have been formed.

My case is unique in affording proof of the coexistence of malignant disease in another organ. In the case which Mr. Tait records this evidence is wanting, as he had no opportunity of examining any of the thoracic or abdominal viscera. Although the patient is said to have died of tubercular disease of the lungs, Mr. Tait seems to suggest that possibly there may have been cancer in some other organ. I believe that in my case the disease began in the periosteal layer of the dura mater, and that although the perforation of the skull which already existed was due to the more active growth of that portion of the disease which had its seat in the dura mater, there was also a concomitant affection of the pericranial covering of the skull, and that another aperture in the cranium would soon have resulted from the extension of the disease from without inwards.

The following points appear noteworthy in the clinical history of the case:—The patient had been in the habit of carrying heavy weights, and had frequently had blows on the head. It is difficult to say whether these injuries had anything to do with the causation of the disease; probably they had, but certainly, as far as we could ascertain, syphilis had not. Another feature of interest was the absence of any cerebral symptoms until within a few weeks of her death, and their on-coming soon after the outward growth of the tumour had been checked by the application of very moderate pressure to its surface. Relief of pain followed the removal of the necrosed fragments of the skull on each occasion.

For the establishment of a correct diagnosis, the exploratory operation undertaken on Nov. 29th was most satisfactory; until then I could not be positive as to the nature of the disease of the skull, and until the post-mortem examination itself, I was unaware of there being any implication of the liver. To the tumours being small, separate, and not extending to the surface of the organ, it is perhaps due that no symptoms of hepatic derangement, no pain or icteroid tinge of the surface, were ever present, and yet cancerous masses must have been forming in the substance of the liver for a considerable time.

Birmingham.

* For the notes of this case I am indebted to Dr. M'Queen, senior house-surgeon of the Queen's Hospital.

† Rindfleisch, Pathol. Histology, vol. ii., p. 359.

OBSTRUCTIVE SUPPRESSION OF URINE AS A CONSEQUENCE OF RENAL CALCULUS.

By JAMES MIDDLETON, M.D.

THE most common cause of obstructive suppression of urine is the impaction of a calculus in the ureter of a person having only one kidney capable of secreting urine; the other having previously become disabled by disease or accident. The following case, which came under observation last spring, seems to possess considerable interest, as presenting a typical example of this affection.

G. W——, a commission agent, aged forty-nine, married. Though not intemperate, he had always lived freely till within the last eighteen months, since which he has been more regular in his habits. He had always enjoyed excellent health, and from childhood had "never required a doctor" till about three years ago, when he suffered from a large carbuncle on the left hip, which was freely incised

and healed quickly. In November, 1873, he for the first time suffered from an attack of gravel, during which he complained of "sickening pain" in the right lumbar region, extending thence along the course of the right ureter and to the right testicle. He was not aware of having passed any calculus during this attack. In May, 1874, he had a second attack of renal colic, during which the pain was exclusively referred to the left lumbar region and the course of the corresponding ureter. This attack terminated in the passage of a uric-acid calculus, in size and shape resembling a barleycorn. For some time after this attack the urine continued highly acid and loaded with crystals of uric acid, but under treatment with citrate of potash, extending over a period of nearly eight weeks, it became perfectly normal, and he assured me he felt better than he had done since the date of his first attack.

From this time he enjoyed very good health, till Feb. 17th, 1875, when he was again attacked with renal colic confined to the left lumbar region, and the urine became scanty, pale in colour, and of low specific gravity. From 9 P.M. of the 17th till 10 P.M. on the 20th no urine whatever was voided. About 10 P.M. on the 20th he passed about an ounce and a half of very pale urine; specific gravity 1006. The urine continued to be passed in increasing quantity for the two following days, but presented the same pale colour and low specific gravity, 1005 to 1007. On the 23rd the flow of urine was again arrested, but returned in considerable quantity the following morning. From 9.30 P.M. on the 24th till 10.15 P.M. on the 27th the urine was entirely suppressed. He then passed five ounces of very pale urine, specific gravity 1008. Between 10 P.M. on the 27th and 10 P.M. on the 28th he passed eight ounces of urine, specific gravity 1008, and presenting the same general characters as on the previous day. From 10 P.M. on the 28th Feb. till 10 P.M. on 1st March he passed six ounces, specific gravity 1007. From the evening of 1st March till the afternoon of the 6th he continued to pass urine daily, varying in quantity from five ounces to eight ounces; very pale in colour, and of specific gravity 1005 to 1008. Between the afternoon of the 6th and the morning of the 8th the flow of urine was again entirely suppressed. On the morning of the 8th he passed six ounces, presenting the same characters as previously described, and during the day he passed a larger quantity than he had done during any corresponding period since the commencement of the attack—thirteen ounces within ten hours. At 6.30 P.M. on the 8th he expired, having lived nineteen days from the commencement of the suppression.

Until the evening of March 4th there was a total absence of any constitutional symptoms indicating that so important a function as the secretion of urine was suspended. Up to this time his tongue, skin, and pupils were natural; there had been scarcely any nausea or vomiting, the appetite was fair, there was scarcely any headache or insomnia, the pulse was steady at about 78, respiration 24, and temperature normal. On visiting him about 10 P.M. this evening I noticed for the first time slight twitchings of the muscles of the arms. He had now little or no pain in the lumbar region, and any of which he complained was rather of a dull aching character than sharp and lancinating, as at the commencement of the attack. He had scarcely any desire to pass urine, though frequently expressing anxiety about its suppression. The skin and bowels had acted freely.

March 5th.—The muscular twitchings were somewhat more marked, and were observed in the lower as well as in the upper extremities. There was also considerable muscular weakness manifested when he attempted to walk.

6th.—The muscular twitchings were more frequent and severe, and he was unable to walk or stand without assistance. Pulse slightly increased in frequency, 80; temperature falling. He complained of slight thirst and occasional nausea after taking food. Up to this time he slept pretty well, and took a fair amount of nourishment.

7th.—All his symptoms became more pronounced. Pulse 82, irregular; temperature 98·7°; respiration 20, much embarrassed and of a peculiar panting character; tongue dry and slightly coated; great muscular prostration, and twitchings frequent over the whole body; occasional nausea and vomiting; his countenance expressive of great anxiety; intellect unaffected; pupils natural.

8th.—Passed a most restless night, constantly having his position changed or asking for his limbs to be rubbed; muscular twitchings almost incessant over the whole body, and power of legs quite gone. Placing his hand on the epigastric region, he said: "Above this I am as sound as a bell, below it I am quite dead." Inspiration prolonged and laborious; expiration short and panting; pulse 82; temperature 98·4°; pupils slightly contracted, but acting under stimulus of light; consciousness and intelligence unaffected; occasional vomiting and hiccough; appetite quite gone. During the day his symptoms became more and more distressing, and in the evening, while giving some instructions regarding his affairs, he suddenly expired. There was no coma or convulsion throughout, and his intellect remained unclouded to the last.

Autopsy, twenty-four hours after death.—Strong rigor mortis; body well nourished, and quite free from any urinous or ammoniacal odour. The post-mortem examination was, at the request of the relatives, confined to the abdomen. All the organs were healthy except the kidneys and ureters. The right kidney weighed four ounces and a half; it was pale in colour; the capsule was thickened and irregularly adherent, and the subjacent surface was rough, and studded by a few small cysts. On section, the cortical portion was much atrophied, the bases of the cones in some places being almost continuous with the surface of the kidney. The cones themselves were very pale in colour, irregular, and few in number. The corresponding ureter was of normal calibre, and pervious throughout its course from the kidney to the bladder. At the latter point, however, an elongated uric-acid calculus, weighing three grains and a half, was found firmly impacted, and completely occluding the terminal portion of the canal, where it passes through the coats of the bladder. The left kidney was considerably enlarged, weighing eleven ounces and a half, and presented a dark and highly congested appearance. The capsule was slightly thickened and adherent; the surface was smooth and uniformly congested. On section, the renal substance was intensely injected throughout, the cones presenting a somewhat deeper colour than the cortex. The latter was relatively increased in bulk, denser than normal, and presented a uniform bright-red colour. Lying in the pelvis of the organ, and accurately moulded to its shape, was a large uric-acid calculus, which upon removal was found to weigh 146 grains. Extending from the convex border of this mass a prolongation passed into the central infundibulum, while two lateral prolongations in like manner extended into the upper and lower infundibulum. A fourth prolongation, longer and thicker than those already mentioned, and gradually tapering towards its termination, extended from the concave border of the mass and passed into the ureter. The calyces were filled throughout with uric-acid concretions, varying in size from three grains to a coarse powder. In addition to the large calculus, forty-five grains of this deposit was also removed. The pelvis and ureter were scarcely if at all dilated. At the terminal portion of the ureter a small uric-acid calculus, weighing two and a half grains, was found firmly impacted. It had the appearance of having become detached from the larger calculus lying in the upper portion of the ureter. In the rest of its course the ureter was pervious. Two ounces of very pale urine were found in the bladder.

The history of this man's case clearly demonstrates the fact that he had lived through an attack of uretral plugging terminating in the destruction of the right kidney. The left kidney then became hypertrophied, and continued to perform double duty until the left ureter became similarly blocked. The secretion of urine was thus permanently arrested, and death resulted from uræmic poisoning.

In reviewing the symptoms presented by this case, we cannot fail to note the length of time which elapsed before any indication of uræmic poisoning became manifest. For fifteen days from the commencement of the attack he showed no symptoms of disturbed health. Subsultus of the tendons of the wrist, and progressive muscular weakness, were the earliest indications of the approach of the uræmic state. As the muscular prostration advanced the breathing became slow, laborious, and panting, with a lengthening pause between inspiration and expiration.

During the course of the disease the urine was excreted at very irregular intervals and in varying quantity, but throughout it invariably presented the same pale, watery

colour, totally devoid of its ordinary colouring matter, and, however small in quantity, never manifesting any material increase in specific gravity.

The appetite continued good till near the end; the skin was generally moist, often perspiring; and the intellect remained unclouded to the last. There was no dropsy, no persistent vomiting, and no ammoniacal odour from the breath or skin, nor from the body after death.

Manorhead, Stow.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

LARGE STRANGULATED CONGENITAL HERNIA; OPERATION, FOLLOWED BY SUPPURATION BETWEEN THE ABDOMINAL MUSCLES; RECOVERY.

(Under the care of Mr. GEORGE LAWSON.)

THE following case of strangulated congenital hernia presents some points of clinical interest. The hernia was very large, oblique inguinal, and congenital; the strangulation was very acute, and the progress of the case afterwards was exceptional. The wound of the operation was small, and over the neck of the sac; but some difficulty was experienced in returning the large quantity of bowel—about sixteen or eighteen inches—into the abdomen, as it appeared to be held by some constriction in the scrotum. Mr. Lawson therefore withdrew the whole of the protruded intestine from the sac of the tunica vaginalis, and then the reduction was easily accomplished. The patient at first progressed very favourably. All tenderness of the belly ceased after the operation; but on the second day the temperature rose to 102·6°, the pulse to 112, and the man complained of tenderness on the right side of the abdomen. The belly was flaccid, and the tenderness seemed to be confined to the abdominal walls. The high temperature and quick pulse, with tenderness on the right side, continued until the sixth day, when the symptoms were relieved by the escape of a large quantity of pus, which came from the wound when pressure was applied with the hand over the right iliac region. There was extensive suppuration between the abdominal muscles, and this accounted for the continued high temperature and pulse. On the following day the pulse went down to 96, and the temperature to 99·2°. During the development of these symptoms the man had a wakeful, busy delirium, which closely resembled delirium tremens. The patient improved as soon as free suppuration was established, and has continued to do well. The amount of pus which escaped daily for many days was not less than from four to six ounces. He is now convalescent.

James C——, aged twenty-four, was admitted on Dec. 29th at three o'clock in the morning, with a large scrotal hernia of the right side, which he was unable to return. He had been ruptured all his life, and had worn a truss, which, however, did not prevent the hernia from frequently coming down; but up to the time of admission he had always been able to reduce it. Four hours before his admission, whilst straining at stool, the hernia descended, and this time it resisted all his endeavours to get it back, and as he began to feel some discomfort, he applied to the hospital for relief.

On his admission he was seen by the house-surgeon, who found a large scrotal hernia, not in the least tense, but rather tender, and as there were no other symptoms the man was placed in bed, with his pelvis raised. A full opiate was given by the mouth, and an ice-bag was placed over the tumour. The lower bowel was also emptied by means of an enema.

The man derived no benefit from this treatment, but symptoms of strangulation rapidly set in, and at nine o'clock the tumour was very tense and tender to the touch. There was pain in the abdomen with a sense of dragging and nausea. Mr. Lawson then saw the patient, and decided to operate at once. There was nothing special in the operation, except that after the division of the stricture there was some difficulty in returning the bowel, as it seemed to be held in the scrotum. Mr. Lawson accordingly drew out, as already stated, the intestine, about fourteen or sixteen inches, from the sac of the tunica vaginalis, and then it slipped back easily into the abdomen. The wound was closed and a pad and bandage applied. The belly was covered with a layer of cotton-wool, and he was ordered half a grain of extract of opium, which was to be repeated every two or three hours if in pain. After the patient had recovered from the ether, he expressed himself greatly relieved by the operation.

Jan. 3rd.—The patient passed a good night, but complained of pain on right side of abdomen. The belly was quite flaccid. The temperature and pulse had risen; pulse 112; temperature 102·6°. To go on with the opiate pills.

The patient continued in much the same state, with a high pulse and temperature, until Jan. 4th, when there was a large escape of pus from the wound, evidently from extensive suppuration between the abdominal muscles.

Jan. 5th.—Much better. The tenderness was greatly diminished. Pulse 96; temperature 99·2°. The discharge very free from the wound.

6th.—The bowels acted well without medicine. The discharge still continues very copious on pressure with the hand over the right iliac region.

30th.—The man has progressed favourably since last report. The discharge has ceased, and he is convalescent. The patient has since left the hospital quite well.

ST. MARY'S HOSPITAL.

RETROVERSION OF THE GRAVID UTERUS; RETENTION OF URINE; RECOVERY.

(Under the care of Dr. WILTSHIRE.)

CAROLINE O——, aged thirty-seven, married twenty years, has had nine children and four miscarriages; the youngest child is two years old; labours generally quick. Thirteen years ago had small-pox, and since then has had constant pain in the small of her back and great trouble with her water, being unable to pass more than a small quantity at a time. The urine is always "furred red"; micturition is occasionally painful; she is generally rather costive, and suffers much from bearing-down pain during defecation; says her motions now "hurt her wonderfully."

For a fortnight previous to admission she could pass only very small quantities of urine at a time. On the 21st of December, 1875, five days before admission, she lifted some heavy tubs while washing, and thinks she then strained herself. On the 26th, the day of admission, after a railway journey which shook her very much, she found herself quite unable to micturate. A medical man who was called in passed a catheter and drew off some urine, after which he sent her to the hospital.

Mr. Wade, the acting obstetric house-surgeon, between the 26th and 28th drew off a small quantity of urine, but as the size of the abdomen did not diminish and the pain and other symptoms became worse, she was seen by Dr. Wiltshire on the 28th, who noted the following condition:—The patient was lying on her back with her legs widely apart and slightly drawn up. The countenance had a pained and worn expression. She complained of a good deal of pain in the lower part of the abdomen, and she eructated frequently, and occasionally vomited bilious-looking matter. The tongue had a moist silvery coating. The temperature was normal; pulse 80, and of good volume. There was a urinous odour about the patient; she believed herself to be three months pregnant. The abdomen was very prominent, slightly more so to the left of the middle line than elsewhere. It was as large as if five and a half or six months pregnant, and distinctly fluctuated everywhere. There was dulness on percussion all over the tumour. Flanks resonant. On vaginal examination it was found that the finger, immediately after passing the

ostium vaginæ, impinged on a tense globular mass about the size of a gravid uterus of three and a half to four months. This nearly touched the perineum, and considerably narrowed the calibre of the vagina. The mass could be traced high up anteriorly until it became lost beyond the reach of the finger. The cervix uteri pressed against the urethra, which was, indeed, compressed between the cervix and pubic arch. The os uteri could not be felt except by painful pressure, and then only the lower lip could be reached. The diagnosis was clearly that of a retroverted gravid uterus, with consequent retention of urine.

A No. 8 gum-elastic male catheter was used to draw off the urine, but it was found not to be sufficiently flexible to ride over the neck of the uterus and dip down into the bladder without causing pain; a No. 3 was therefore substituted, and 44 ounces of urine were withdrawn by it. The urine had not become decomposed; it was acid, specific gravity 1016, and contained no albumen. After the evacuation of the bladder the cervix uteri could be distinctly felt just above the pubes. This was verified by internal examination. The position of the uterus was found to be much as it was before the urine was drawn off. Reduction was effected by steady and gentle pressure on the fundus upwards and to the right, so as to avoid the sacral promontory, and by simultaneous downward pressure on the supra-pubic cervix, the manœuvre resembling that of bipolar version. The patient was directed to lie in the prone position as much as possible. Ordered liberal diet and wine. To have fifteen grains of chloral at bedtime.

Dec. 29th.—Looks wonderfully better, and expresses herself as feeling so. No vomiting. Had a very fair night's sleep. Has passed water four times without difficulty, and a motion once without pain. On abdominal palpation the uterus can be felt in its normal position, and is about as large as a gravid uterus of three to four months.

The patient was discharged well on the 1st of January.

Remarks by Dr. WILTSHIRE.—This was a typical case of retroversion of the gravid uterus with consequent retention of urine. There was, as there very commonly is, a history of sudden straining (in this case from over-exertion), and there can be no reasonable doubt that the uterus was displaced backwards during the strain. When once this has happened mechanical retention of urine begins, and becomes aggravated as the accumulation of urine continues, the cervix becoming more and more jammed against the pubic bone. There may be, as there generally is in retention, in the male as well as in the female, a dribbling, and this may prove misleading unless it be looked upon, as it should be, as a symptom of *retention*, and not of *incontinence*. The importance of using a long and flexible catheter (which is my invariable custom in females) was well illustrated by this case. Even a well-warmed No. 8 was found to be too unyielding to curl over the cervix and dip down into the bladder, and a No. 3 was therefore substituted. In other similar cases which I have seen I have never found the cervix to be so plainly distinguishable above the pubes. According to my observations, distension of the perineum is usually a more or less marked symptom, the bulging increasing in proportion to the accumulation of urine in the bladder.

GALWAY COUNTY INFIRMARY.

CASE OF IMPACTION OF A FILE IN THE VERTEBRAL COLUMN.

(Under the care of Dr. BROWNE.)

THE following admirable report and remarks have been drawn up by Professor CLELAND.

On the night of Feb. 3rd Patrick E. R——, a locksmith, aged twenty-three years, was admitted into the infirmary with a file protruding from his back. It was ascertained that the patient had entered a shop, and had jocularly grasped a friend round the waist from behind, and that his friend in releasing himself had caused the patient to slip on the stone flags, and to fall backwards, when the file, which was in his coat pocket, pierced his clothes, and lodged in his back with such force that the wooden handle and brass ferrule in which it was set were broken and separated from it. The patient complained of no great pain, and walked into hospital.

In removing the clothes Dr. Browne found it necessary to cut out a portion round about the file, in consequence of this being impacted in the wound. The wound was seen to be situated about the level of the second lumbar spine, immediately to the left of the middle line. The file was about five-eighths of an inch wide at the base, and the tang was bent by the blow. There was little or no bleeding from the wound, and the file pointed in a direction upwards and somewhat forwards and towards the middle line. It was so firmly fixed that strong forceps had to be used in the extraction, and great force employed. It was felt that the file was broken within the body, and that the protruding portion grated against a fragment in the interior. After extracting the protruding part, Dr. Browne determined to wait till the following morning before proceeding further.

Next morning a consultation was held with Professors Pye and Cleland, and the wound was prolonged upwards for about four inches in search of the missing part of the file, but without result. Two days afterwards an attempt was made to ascertain the exact locality of the fragment by placing near the wound a strong magnetic needle, but no deviation took place; and although, for days afterwards, a renewed attempt was made in which the needle was magnetised by means of a very large horseshoe magnet of great lifting power, which had on a former occasion done good service in leading to the detection of a fragment of sewing-needle painfully impacted in a phalanx of a finger, no result was obtained. Meanwhile the patient continued to be able to walk, and complained of no pain, and only of slight stiffness of the lower limbs; and were it not for Dr. Browne's conviction that he had felt the distal end of the file grating against the other portion, and also for the consideration that the friends of the patient, although they believed that the distal end had never entered the body, had not been able to find it at the scene of the accident, one would have been strongly tempted to believe that there was no foreign body present.

However, on the 13th the tongue began to get dry and foul, and on the following morning, when Dr. Browne made his visit, the patient, although sitting up at the fire, had a drowsy appearance, and in walking across the ward to his bed accepted assistance, and showed a marked limp and stiffness of the right leg. On the 15th he was in a high fever and profuse perspiration. On the 16th he was worse, and picking the bed-clothes; that evening he became comatose, and he continued so till his death early on the morning of the 18th, a fortnight after the accident.

The friends refused to allow an autopsy, and removed the body. But having been persuaded that the death had occurred in consequence of measures taken to remove a foreign body which had never entered, they demanded an inquest, and on the 20th a post-mortem examination by order of the coroner was made by Dr. Walsh, demonstrator, in the presence of Dr. Browne and Dr. Cleland.—The body was

in a state of great putridity, the face being swollen and perfectly black. In these circumstances, and the examina-

tion being made in a small room in a private house, it was deemed expedient to remove at once the lumbar vertebræ, and the cause of death having been sufficiently ascertained, no further exploration was attempted. The missing portion of the file, about three inches in length, was found with the fractured end broken short between the spines of the first and second lumbar vertebræ, so hidden between them as quite to account for the failure of the exploration during life. Entering between the laminæ of the two vertebræ, it had taken a course forwards with a slight inclination upwards and to the right side, traversing the spinal canal and occupying more than a third of its breadth on the right side, then pierced the body of the first lumbar vertebra, and appeared for about half an inch protruding from the front of the bone five-eighths of an inch to the right of the middle line. The file is rounded on the side towards the centre of the canal, flat on the other, and the fragment is about half an inch broad where it has been broken, while at the point it is narrowed to an eighth of an inch in breadth, and sharpened so as to serve as a turn-screw. A strip of black calico had been carried in along with it in its whole course, so as to project with it from the front of the vertebra. On examining the perforated portions of clothing which have been preserved, this calico was found to be part of the lining of the pocket in which the file had been carried, and that the coat had folded in over the file in such a way that both file and calico perforated the cloth of the coat twice before passing through the underclothing and lodging in the body. The two vertebræ involved in the accident having come into Dr. Cleland's possession, he removed the contents of the contained part of the canal. The sheath of the dura mater had been torn open by the file for three-quarters of an inch on the right side. The spinal cord extended to a point slightly below the second lumbar vertebra, and was pushed to one side without injury to its form or to its arachnoid covering. The nerves also appeared to have escaped injury, and there was no trace of suppuration, nor of plastic exudation, nor of increased vascularity, nor of hæmorrhage. This agrees with the circumstance that no pain whatever was felt by the patient; and although the advanced putrefaction of the body prevented observations being made, there can be no doubt the immediate cause of death was fluid effusion on the brain and spinal cord. It is interesting to note that the extreme rapidity of decomposition was perfectly similar to what occurs in epidemic cerebro-spinal meningitis.

The main points of interest in this case are the survival for so many days without either pain or paraplegia, and the demonstration of the enormous force with which an instrument may pierce the body in a mere fall, not even from a height, a matter of some medico-legal importance. It is worthy of remark that had the position of the fragment of the file been discovered during life, it would yet have been improper to attempt its removal. Such an attempt would probably have failed from the tightness of the impaction; and even if it had succeeded it must have been followed by hæmorrhage into the canal, which would only have expedited the fatal issue. The direction of the impacted fragment, it will be seen, was quite different from that of the portion which was removed on the night of the accident; and it must be assumed that this latter portion must have been driven in further after the fracture. Indeed, its track beneath the vertebral aponeurosis and close to the spinous processes was that which was followed in the exploration made.

GLASGOW UNIVERSITY COURT.—At a special meeting, at which were present the Principal (the Rev. Dr. Jamieson), Dr. J. A. Campbell, Dr. Cowan, and Dr. Kirkwood, the following were unanimously appointed additional examiners in Medicine:—(1) Anatomy, for four years, Dr. H. S. Wilson of Cambridge; (2) Chemistry and Materia Medica, for three years, Dr. Robert Perry of Glasgow; (3) Botany and Zoology, for three years, Dr. Andrew Wilson of Edinburgh; (4) Physiology and Pathology, for five years, Dr. W. H. Allchin of London; (5) Practice of Medicine and Clinical Medicine, for five years, Dr. Scott Orr of Glasgow; (6) Surgery and Clinical Surgery, for five years, Dr. James Wallace of Greenock; and (7) Midwifery and Medical Jurisprudence, for four years, Dr. John Brunton of London.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on the 21st instant—Mr. Geo. Pollock, President, in the chair—when the adjourned debate on Syphilis was resumed. Owing to the absence of Mr. Hutchinson, and the large number of speakers on the list, the debate was not concluded when the hour for adjournment arrived. It was understood, however, that at the next meeting of the Society the greater part of the evening will be devoted to the usual work of the Society, and the rest of the time occupied with Mr. Hutchinson's reply and the President's summing-up.

During the evening Dr. Gwyther and Mr. C. H. Johnson were elected members of the Society.

The discussion was resumed by Mr. THOS. SMITH, who regretted the absence of the opener of the debate as tending to take from the spirit of what he might have to say in opposition to his views. He did indeed hope to persuade Mr. Hutchinson to come to better views on certain points. In the statement that syphilis does not end with the disappearance of its secondary manifestations all would concur. But further, Mr. Hutchinson goes on to say that the lesions of the tertiary stage are not the effects of present blood-contamination, advancing in support of this their unsymmetrical distribution and their yielding to local remedies. Upon the question of symmetry Mr. Hutchinson appeared to lay but little stress. Had he placed more value on it, he (the speaker) would have been prepared to say that secondary syphilis is not very symmetrical, nor is tertiary syphilis always unsymmetrical in its manifestations. But as Dr. Moxon has pointed out, Mr. Hutchinson acknowledges that, after all, the question of symmetry is not very important. With regard to the curability of tertiary lesions by local applications, he (Mr. Smith) was willing to allow that a few, as palmar psoriasis, lupoid tubercles, &c., are curable by local remedies; but he could not admit that gummata, deep ulcerations, &c., could be cured except by remedies taken into the blood. He believed tertiary syphilis to be a blood disease *almost* to the end, and he took his stand upon the fact that in the later stages of tertiary syphilis there is power of hereditary transmission of the disease. Mr. Hutchinson seemed to have felt this to be a difficulty requiring explanation, since he says "the risk of contagion appears to cease long before the risk of hereditary transmission." In his own opinion this difficulty was an insuperable one, for it is inconceivable that a man should be able to transmit syphilis to his offspring who was not himself suffering from constitutional syphilis, or, in other words, who had not a blood disease, using the term "blood" in the extended general sense which Mr. Hutchinson gave it. It might be urged in opposition to this that in gout we have an example of a blood disease which may be communicated to the offspring even *before* any of its manifestations have appeared in the parent. It may, indeed, be transmitted to a grandson through a son who never had the disease at all. But an explanation may be given with regard to gout which will not serve for syphilis; it lies in that potentiality of development in certain definite lines given by the germ or sperm which Sir W. Jenner pointed out—a potentiality which may take years to develop, and even, as in the case of gout, often more than a lifetime may elapse before it shows itself. In the transmission of hereditary syphilis there is direct proof of the continuity of the disease, just as in its general history through all its stages there is a direct continuity. It is emphatically a blood disease; for it manifests itself by impairing the fecundity of the seminal fluid, by blighting the womb, by leading to infection of the mother by the fœtus, &c. In all this it presents a striking contrast to gout. For no one had ever heard of a mother contracting gout from a fœtus, no more than of a child inheriting syphilis from the grandparent. It being acknowledged

that in utero the infected fœtus could poison the mother, how else, he would ask, could this take place than by means of the placental blood? Hence, if tertiary syphilis be not a blood disease, what is a blood disease? It is an all-pervading disease, and the only all-pervading fluids in the body are the lymph and the blood, and it is more likely to be in the blood than in the solid tissues, various as they are in nature and disposition. He was anxious that Mr. Hutchinson should not misunderstand him, because he admitted almost all the points laid down in the opening address; but he could not and would not admit that the risk of contagion appears to cease long before the risk of hereditary transmission.

Sir WILLIAM GULL said that he took advantage of the occasion to speak, because of late years the subject under discussion was one which had come more and more into the department of the physician. For too long a time syphilis had been handed over exclusively to the surgeons. The history of syphilitic infection was most interesting, and when it is considered that the origin of the poison is, as it were, a genital one, it might almost be inferred that it would have an all-pervading character. From the knowledge of the mode of its communication alone it might be predicted that it would pervade all the tissues; and, moreover, it stood almost alone, for although it had long been given a place among the specific fevers (e.g., Dr. Robert Williams, in his work on "Poisons," ranks it with typhus, &c.), it is still quite a peculiar poison. Compare it with variola. A father and mother may have variola, but their child is uninfluenced by the fact of their having had it. So also with the other acute specifics. Therefore, if syphilis is to be placed amongst the fevers it must be acknowledged that it is not, like the rest of them, limited by time. He agreed with Mr. Hutchinson in the belief that it is in some respects limited by time when uninfluenced by treatment, and when unassociated with those other divinities which so often accompany Venus—Bacchus and Mercury. But he thought it might be extended *ad infinitum*. A father may beget a syphilitic child, this child may transmit the disease by vaccination to another child, and the whole symptoms be reproduced all over again. Therefore, if it is a fever it is quite peculiar. Then it is a fever without pyrexia. As to its being a blood-poison, well, he would not enter into this old question as to the meaning of the phrase "blood-disease." He thought syphilis was rather a "flesh-and-blood disease," for there was no tissue in which it did not manifest itself, no fluid by means of which it could not be conveyed. Vaccino-syphilis was positive proof of its conveyance by the blood, for in the few cases recorded it was expressly stated that in such cases there was inoculation of blood as well as of the vaccine lymph. Passing now to the tertiary effects of syphilis, with which physicians have more especially to do—for the surgeons still hold to the primary and secondary affection,—he agreed with Mr. Smith that even in this stage syphilis was a constitutional disease. This was of great importance clinically, for an individual may be syphilitic without showing any evidence of syphilis at all. There was no better authority upon tertiary syphilis than Dr. Wilks, and he had failed to find any evidence of syphilis in a patient under his (Sir Wm. Gull's) care. This patient was suffering from general malnutrition, he had lost more than two and a half stones in weight, and was more or less generally paralytic (no definite local paralysis, as when due to gummata involving nerves). Sir William knew that he had contracted syphilis many years before, and was inclined to attribute his condition to that disease. Dr. Wilks saw the patient, but could find no evidence of visceral syphilis, and could not believe that syphilis had anything to do with his state. But if treatment could be taken as a test of the accuracy of a diagnosis, it was so in this case, since the paralytic symptoms disappeared under anti-syphilitic remedies. He (Sir William) believed that syphilitic symptoms may continue all through life. It may be found in the hair, the complexion, and in the odour of the sweat. He might recall a case of this kind, in which a patient was supposed to be suffering from a diffused tuberculosis. The man "smelt of syphilis," and he (Sir William) remarked that if the patient had a copper-coloured rash in one palm it would have been put down undoubtedly to syphilis, which he believed it was. He believed then that, over and above the formation of gummata, there is a general condition always present. He could not sit down without expressing the gratitude of all the profession in England to Mr. Hutchinson and others for the valuable exposition that the "stages" of syphilis are only artificial divisions, and for endeavouring to make clear their relations to each other.

Mr. SIMON said that for many reasons he would have preferred to have remained a listener in the debate, in which he had not come prepared to take a part; but, in obedience to the President's invitation, he would venture to make a few general criticisms upon the admirable paper contributed by Mr. Hutchinson. He thought that paper called upon the Society too much to say "yes" or "no" to questions which can only be answered by a "more" or "less." For instance, a too hard and fast line had been drawn in the proposition that syphilis ceases to be a blood disease in proportion as it ceases to produce symmetrical symptoms. With regard to the question of its being a blood disease, he was inclined to agree with Sir W. Gull in his happy definition of it as being rather a "flesh-and-blood" disease. He knew no special blood diseases as such. Syphilis is more or less a blood disease at different periods. For example, during the period of infection, any and every secretion, whether the spermatic fluid, the catarrhal discharge from the uterus, the vaccine lymph from the child, could impart the disease. Nor did he think that any abrupt line could be drawn between the condition of the patient in that period and in the tertiary stage. The quantity of the contagium in the blood appeared gradually to diminish, and its power of infection to subside. It is a disease of indefinite duration, and a time comes in its course in which it is quite a matter of *chance* whether a particular secretion will continue to be contagious or not. In fact, as it proceeds, this contagiousness may alternate in its appearances; for only in this way could the fact of the alternation of syphilitic and non-syphilitic offspring be explained. As regards the gummata, which Mr. Hutchinson spoke of not so much as syphilitic phenomena as phenomena arising in parts which had been affected in the secondary stage, he would like to raise the question whether they could be regarded as sequelæ at all. He could not understand such a thing as an *active* sequela in pathology. A passive sequela, such as a cicatrix, he could understand, but a renewed active growth was surely not, strictly speaking, a sequela. It implied, if anything, that the *cause* of the formation is still in operation. He did not differ from Mr. Hutchinson as to the phrases he employed, if they were understood. He agreed with him that in proportion as secondary syphilis ceases to be an infective disease, the symptoms it produces are likely to be unevenly distributed on the two sides of the body. He also agreed that in proportion as we arrive at the period at which the gummata arise there is evidence of a condition of the weakening of the poison, in which state it is not likely to affect the offspring. But he did not think it was right to say that because a man has gummata he will not beget syphilitic offspring, or because he has unsymmetrical lesions he is no longer capable of transmitting the disease to his wife. He did not think Mr. Smith's comparison of syphilis with gout strictly correct. Gout is inherited just as a Roman nose is; it is part of the family likeness. The particular type of tendency to disease passes, just as the shape of the features is transmitted. But the transmission of syphilis is different. Just as, in comparative pathology, in some forms of the silkworm disease the contagium passes absolutely and bodily into the infected ovum, so there was a material something (which it was no very great assumption to believe was an organic growing something) which, being transferred, led to the general and impaired development of the ovum. As to the convertibility of syphilis into other diseases, it is edifying to observe that those disorders into which it is said to be convertible are amongst the most ill-defined of any in the nosology. The Pathological Society had not yet ventured to give a definition of scrofula, and if by scrofula is meant tubercle, that, of course, is perfectly distinct from any relation with syphilis. He had no knowledge or experience of syphilis either as producing any other disease or as being capable of modifying other affections. And he must demur in that respect to Sir W. Gull's remarks as to the variety of effects produced by syphilis in different subjects. If he meant variety of degree in manifestations, he would agree with that statement; but as to variety of *effects*, surely that was open to question. Differences of result are seen

in relation with all infective diseases, such differences or susceptibilities being to a very great degree hereditary. So out of one hundred people with syphilis there may be very many different degrees of result. As to the question whether the gummata are deferred manifestations or developments of alterations in tissue originally made in the secondary stage of the disease, he thought it to be more probable that they (the gummata) result from the weakened action of a contagium present from the first, but not contained in the tissues of the part. The contagium might be present in the condition which the fungologists call "dauersporen," which linger latent in the tissues, not until after some time producing its result; and it was only in accordance with what is known in pathology that an irritation should give rise to hypertrophic phenomena, such as are exhibited in the gummata. But if this is to be examined it can only be by appealing to facts. Hence facts must be sought by the careful examination of as many cases of secondary syphilis as possible. It was very seldom that opportunities for such examination occurred in the adult, but of children dying in the secondary stage the number was very great. He would urge, then, a more extended examination of the subject of infantile syphilis, as tending to throw light upon this question. Then, as regards the ulterior effects of syphilis, he thought much more might be done by the investigation of family histories. Here those who had families under their observation, and are able to trace long histories of syphilis, could ascertain whether certain diseases are produced more frequently in the offspring of syphilitic parents than in those of the non-syphilitic. It was also an interesting question whether syphilis ever appears in more than the next generation. He had seen a case where there was a very strong suspicion of the appearance of syphilis in the third generation. A lady whose father died of tertiary syphilis, bore a child which presented undoubted evidence of syphilis, although there was not the slightest suspicion of infection having been produced in any other way.

Sir W. Gull explained that by variety of effects he meant such variety as was exhibited by the different cutaneous eruptions in syphilis, which were formerly believed to indicate a different poison, but which he held to be dependent upon the individual attacked.

Mr. T. Smith wished to explain that he did not intend to compare, but to *contrast* gout with syphilis.

Mr. Simon.—Quite so. "Contrast."

Mr. John Wood was surprised to find a survival of the old dispute between the humoralists and solidarists cropping up in this debate, from which they had learnt so much. He was sure Mr. Hutchinson had used the term "blood disease" in a general sense, and not as had been interpreted. Among other old ideas which this debate had largely dispelled was that of the multiplicity of poisons in syphilis. He had brought himself to believe that the different effects known as primary, secondary, and tertiary simply indicated different degrees of resistance offered to the poison by the tissues. In the same way might be explained the differences between the two varieties of primary sore—the hard and soft chancre,—which he might illustrate by the behaviour of wounds in different subjects. In the one a wound will heal by the first intention, which in another will soften down into suppuration. As to tertiary symptoms being sequelæ or not, he perfectly coincided with Sir W. Gull and Mr. Simon in the negative. He held that no definite line of distinction could be drawn between the secondary and tertiary stages, and that Mr. Hutchinson erred in trying to define the same. Mr. Hutchinson seemed to agree with Dr. Wilks that all tertiary lesions were laid down during the secondary stage, and afterwards followed the lines of ordinary growth. He thought too much stress had been laid upon asymmetry of the tertiary lesions; and Dr. Moxon had happily disposed of the argument in favour of the symmetrical disposition of the secondary phenomena. If this argument of Mr. Hutchinson's be acknowledged, it is clear that a man might be considered capable of begetting a syphilitic child, and yet not capable of transmitting the disease in the ordinary mode of infection. The case of a child contracting scarlet fever from its mother was not in point, for that might be due to direct contact. However, the chief reason why he spoke was in order to get an answer to the question whether it is or is not true that the races of man are becoming syphilised? On what other hypothesis can we account for the absence among Europeans of such dreadful ravages as the disease exhibits when it attacks virgin countries—e.g., that extensive destruction of the genitals known as the black lion? The modification could not be explained away by the argument of over-mercurialisation in these cases. If syphilis be indeed capable of effecting such a change in men, so that its manifestations are rendered less and less violent, it will come under the class of diseases to which gout and (especially) rheumatism belong. He thought this an interesting point philosophically, and not to be overlooked.

Surgeon-Major Robinson said that the majority of army surgeons now preferred to hold the doctrine of the unity of syphilis. He had always himself regarded the different manifestations as dependent largely upon the constitution and the receptive condition of the patient, as well as upon the degree of ablution he practised. This he has seen particularly in the Guards, where occasionally there has been an outbreak of phagedæna among a series of men. He had also seen series of cases of soft chancre and indolent bubo, which were attributable to the conditions prevailing at the time. He believed then largely in the existence of modifying circumstances. It was interesting, but certainly a fact, that examples of hereditary syphilis were far more common in civil than in military life. This he attributed largely to the influence of early mercurial treatment, which the strict surveillance practised in the army was always able to be had recourse to, and thus he believed preventing the less frequent occurrence of the sequelæ of the disease. For although hardly one man passes through some regiments without contracting syphilis, yet he might say from his own experience (now nearly thirty years) that the hereditary disease was very seldom met with. As to the frequency with which phthisis and syphilis were associated, other causes of the pulmonary disease, such as alcoholism, dress, night-duty, &c., could not well be excluded in most cases; but he pointed out that Dr. Graves had noticed a constitutional condition resembling that of incipient phthisis, which yielded to the influence of mercury.

Mr. Edgumbe Venning asked for a further explanation from Mr. Hutchinson of his statement as to dualism being dead. If the soft chancre were a syphilitic sore in which the virus took no part, it would be reduced to a simple inflammatory sore. But surely there was something specific about the soft chancre; its inoculability, definite course, &c., placed it in a category by itself.

Dr. Farquharson supported Mr. Venning in upholding the view that the soft chancre had an independent pathological unity, capable of reproducing itself only in a local form when inoculated. On the unity doctrine it would be impossible to tell any patient whether he would have secondary syphilis or not from the appearance of the primary sore. He did not think that mercury could be credited with disarranging the secondary effects of syphilis. He agreed with Mr. Hutchinson with regard to the resemblance between syphilis and the exanthemata, and the frequency of mild secondary symptoms leading to severe tertiary lesions. Referring to Surgeon-Major Robinson's remarks, he said that last year he had recorded a case of hæmoptysis in a syphilitic patient, and he believed in the existence of a syphilitic phthisis.

Dr. Greenfield expressed the great unwillingness which he felt in following the able speeches of Sir W. Gull and Mr. Simon. He had been led to take great interest in the subject from the study of the nature of the morbid growths in syphilis in various stages of their development and the question of their relation to the virus of the disease. Having had recent opportunities of investigating the nature of the morbid growths in various organs, he had found that in their earliest stages they consisted of a lymphoid tissue, mainly composed of small round cells, and occurring chiefly in the outer coat or perivascular space of minute blood-vessels. The growth was at first highly vascular, and a development of embryonic tissue, also highly vascular, succeeded it. But the peculiarity of the process was the invasion of the inner coat of the arteries supplying the growth, apparently partly by proliferation of their endothelium, leading to thrombosis, and consequent degeneration. Subsequently, by the formation of new vessels, partial revascularisation of the new growth might be effected; and the growth of vascular embryonic tissue around, and growing into it, led to its more or less complete absorption. The

change in the arteries had been recently well described by Heubner as occurring in the brain independently of gummata, but Dr. Greenfield had observed the same process around syphilitic new growths and in the kidney. The infiltrating new growths appeared to be formed in the same way, and therefore there was really no distinction except that the gummata were larger. Dr. Greenfield mentioned a case fatal during secondary syphilis, in which he had found minute gummata on the dura mater. Seeing that the gummata or infiltrations were from their earliest period of similar type, and presented no specific characters with the exception of their peculiar mode of growth, and also seeing that they might, as Mr. Hutchinson had shown, occur during the secondary stage of the disease, he argued that they were dependent on the uniform operation of the same cause throughout, and were direct expressions of the action of the syphilitic poison. With reference to the general pathology of the disease, he believed that the analogy with the acute specifics was founded on a partial resemblance only. Both in syphilis and the acute specific fevers there was a local inoculation of poison, which was reproduced probably either in the tissues or in the glands during a certain time. After this incubation period, a more or less sudden diffusion of the poison into the blood, either organised or not, occurred, this being attended with fever and the occurrence of rash, both being probably due to minute embolisms by germs, or to the local action induced by such. But whilst the action of the poison of specific fevers was only temporary, the poison being an epiphyte, and they were then extruded, in the case of syphilis the specific changes in the blood and tissues only then commenced, the poison being reproduced from them, and the syphilitic growth went on in them almost indefinitely, the blood also being from that time modified. These changes in the blood, and reproduction of the lymphatic tissue-growths, formed the tertiary period. But another series of changes, probably due to simple malnutrition, also occurred. Dr. Greenfield inquired whether Mr. Hutchinson believed that in *every* case of so-called congenital syphilis in which notched and pegged teeth or interstitial keratitis occurred, there had been symptoms of syphilis in early infancy. He was inclined to believe that in some cases the condition might be due simply to an inherited tendency to imperfect development or early decay of the more highly developed forms of connective tissue, which were the expression of the exhaustion of the power of connective tissue formation. As showing the influence of the parents' constitutional condition on such development in the child, he instanced the occurrence of cretinism in children of goitrous parents during their residence in affected districts. Possibly also these conditions required a long period for their development; thus, he had recently seen a case of a form of hyperostosis, usually regarded as peculiar to infantile syphilis, developed in the adult after many years of syphilitic affection. He suggested also that the evidence of true heredity of infantile syphilis was to some extent impaired by the date of the occurrence of the specific eruption, which suggested inoculation at about the time of birth, or, as suggested by Dr. Cory, of the separation of the placenta. But as showing the possibly dormant condition of the poison mentioned by Mr. Hutchinson, he instanced a case of undoubted congenital syphilis, where the rash did not occur until seven weeks after vaccination at the age of three and a half months.

Dr. GIBBON made a few remarks as to the immunity of the Hebrew race from syphilis and scrofula, and advocated an extended analysis of the blood, and further researches in the pathology of secondary syphilis.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

AT a meeting of this Society held on the 13th inst., Mr. W. COULSON read an interesting paper, in which he gave a statistical review of the comparative results of Lithotomy and Lithotrity obtained during the past five years in those metropolitan general hospitals that publish a yearly report. The tables drawn up by Mr. Coulson showed that the number of cases of stone in the bladder treated by operation at four of the largest hospitals during five consecutive years was 148, with 24 deaths, or an average mortality of 1 in 6·16. At St. Peter's Hospital, on the other hand, the average mortality for all cases of operation for stone in the bladder, during the same period, was 1 in 11·16, or six deaths out of a total of 67 cases. This remarkable difference in results was, in Mr. Coulson's opinion, to be accounted for by the selection of the operations. In large hospitals lithotomy is the common operation, but at St. Peter's lithotrity is the more frequent. These facts were proved by a table which showed that, while the total number of operations of lithotrity in four large London hospitals during five years was 20, at St. Peter's, during the same period, the number was 44. With respect to lithotomy some important differences were pointed out. In the large general hospitals the deaths after lithotomy and lithotrity are nearly equal, while in St. Peter's lithotrity was twice as successful as lithotomy. At five large hospitals there were 28 cases of lithotrity, with five deaths; at St. Peter's, 43 cases, with three deaths. Not the least interesting fact brought out was the similarity of the results obtained at University College Hospital, Hôpital Necker (of Paris), and St. Peter's Hospital. In the special department at University College Hospital the mortality of lithotrity was 1 in 16; at the Necker Hospital, 1 in 15·6; and at St. Peter's, 1 in 14·3.

Reviews and Notices of Books.

Catalogue of the Models of Diseases of the Skin in the Museum of Guy's Hospital. By C. HILTON FAGGE, M.D., Curator of the Museum, &c. pp. 269. London: J. and A. Churchill. 1876.

ONE of the most striking features of the Museum of Guy's has long been the magnificent collection of models of cutaneous disease. Some two years ago, during a visit to the museum, we were forcibly struck with the pressing necessity of re-naming many of these beautiful models, and of re-classifying them generally. Dr. Hilton Fagge has, however, supplied what was wanted in this respect in the volume before us, and, as might have been anticipated, in a way most creditable to himself. The work is much more than a catalogue. It contains, besides ample and forcible descriptions of the actual models, notes of the clinical histories in many instances of the cases which furnished the artist with the subjects of his work, and also concise general descriptions of the different classes of skin diseases in addition to the particular explanations of the models themselves. The student, therefore, with this catalogue in his hand, may study the various kinds of cutaneous diseases and their particular varieties most advantageously, so far as models can avail for this purpose. To the dermatologist the collection of models, together with the text of the catalogue, constitute a most useful standard of comparison; and for purposes of reference in illustration or illumination of dubious points it has an additional value.

Dr. Fagge adopts a convenient classification of his own in his arrangement of the various diseases in groups: into inflammatory diseases; non-inflammatory disorders, without destructive and with destructive tendencies; affections of appendages of the skin; and parasitic diseases. This has the merit of simplicity, and where the student is concerned this is no mean advantage, for elaborate classification often discourages him in the attempt to master the subject of cutaneous medicine.

We have not contented ourselves with the mere perusal of the work before us, but, as Dr. Fagge has so materially altered the naming and grouping of the skin models, have felt it a duty to visit the collection afresh, catalogue in hand; and advise those who may be able, or are interested in the matter, to avail themselves of a similar privilege, which will, no doubt, be readily accorded. It is simply impossible to enter into any detailed description of the

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catalogue or the models here; but we may say that, with one or two exceptions, all kinds of cutaneous diseases are well illustrated in their various clinical varieties. To show how complete the collection is we may especially refer to the presence of models of pityriasis pilaris, of nails affected by achorion and trichophyton, of hydroa, of pemphigus foliaceus, of verruca necrogenica, of vitiligoidea (to the number of thirteen), of linear atrophy of the skin, of circumscribed gangrene, acute general dermatitis of Wilks, and of keloid, scleriasis, and leprosy in abundance. There are one or two omissions that should be made good in so fine a collection. These are typical lichen ruber and lichen scrofulosorum, the prurigo agria of Hebra, the pityriasis rubra of Devergie or the dermatitis exfoliativa of Wilson, and contagious impetigo, which is different from "porrigo" or ordinary impetigo.

A word of praise is due to Mr. Towne for the excellence of his modeling.

We congratulate Guy's upon the possession of such a collection of models, and Dr. Fagge again upon the production of a catalogue so full and so accurate.

Arthur Schopenhauer: his Life and his Philosophy. By HELEN ZIMMERN. London: Longmans, Green, and Co. 1876.

THIS is a charming biography of a most remarkable man, one whose individuality is as striking, and independence of thought as marked as those of any that have lived in this century. And yet he passed nearly the whole of his life unknown to the world, which indeed—although twenty years have elapsed since his death—is only now beginning to acknowledge his work and take to heart his teachings. Born at Dantzig, and in his early years destined to the mercantile profession, he, on the death of his father when he was seventeen years of age, followed his own bent and became a student, first of natural science and history and then of philosophy. The latter attracted him, and he determined to make it his life-work, while at the same time striking out new lines and combating the popular doctrines of the time. Nor indeed is it to be wondered at that his teaching could not be acceptable, for it was full of despair and pessimism. He imported into his writings the belief of the Bhuddist, and taught the unreality and the misery of existence. Arbitrary will and blind necessity governed the universe, and the individual's well-being was, to him, merged in the prosperity of the race. In this book we read of the growth of these opinions in his mind, and we see him, tortured by ideas of impending evil, soured even by the failures he encountered in not getting due appreciation of his writings. But he knew their value and their truth, and predicted that posterity would accept them. Before he died the current of philosophical thought had turned in the directions which he had pointed out, and his true merit was tardily recognised. To many such a man can hardly be regarded as other than an egotistical misanthrope, but those who carefully read this little book will find in his character much that is of sterling worth, and will be inclined to attribute his pessimism in great measure to the neglect and indifference with which he was treated. Few will question his penetration and will fail to see how much that he taught has now become current philosophy.

Excavations at the Kesslerloch, near Thayngen, Switzerland. By CONRAD MERK. Translated by JOHN EDWARD LEE, F.S.A. London: Longmans.

THIS is an extremely interesting little work, containing an account of excavations made in a large cave of the reindeer period. The chief interest that attaches to the specimens discovered are the drawings which were found on various bones, of which nearly thirty hundredweight were obtained. Some, and, indeed, the greater part of these belonged to the reindeer, but there were many of the horse, stag, urus, aurochs, tame ox, chamois, ibex, elephant, rhinoceros, wolf, fox, wild cat, lynx, cave-lion, glutton, bear, and various birds. There were no human bones, but many flint flakes (at least 12,000). The bones were, in a large number of instances, worked by hand, either pierced or made into arrow-heads or other implements. The drawings are occasionally very remarkable, a reindeer, in particular, being very well pourtrayed. These have been admirably lithographed, together with many of the implements, and afford valuable evidence of the capabilities of these prehistoric men.

A Manual of Clinical Medicine and Physical Diagnosis. By T. H. TANNER, M.D., &c. Third Edition. Revised by TILBURY FOX, M.D., F.R.C.P. London: H. Renshaw. 1876.

WE are glad to note that a third edition of this useful little manual has been needed. The second edition appeared a few years ago under the editorship of Dr. Tilbury Fox, who gave it a careful revision, and added much to its practical value. The third edition has been also carefully revised, and many useful additions have been made to it, especially in the descriptions of new instruments and apparatus for research. A brief outline of the therapeutical uses of electricity has also been added. We can cordially recommend the work to students.

Picturesque Europe—The British Isles. Cassell, Petter, and Galpin. Part I.

IF we may judge from the first part of "Picturesque Europe," it promises to be a work well worthy of its enterprising publishers. The illustrations are really excellent, the woodcuts in particular are so artistic and effective that we have rarely, if ever, seen better. The place described is Windsor Castle and Windsor, and we may refer to the woodcuts of the Round Tower and the Slopes in support of what we have said of the high merit of the illustrations. We must not omit to add that the description of the castle and its vicinity is written in a clear and interesting manner.

THE EFFECT OF PROLONGED MUSCULAR EXERCISE ON THE SYSTEM.

BY F. W. PAVY, M.D., F.R.S.

IN fulfilment of my design, my observations have been carried through the six days subsequent to Mr. Weston's six-day walk. Whilst the urine has been steadily preserved and obtained for analysis from day to day, and the body-weight taken, the diet has been of so varied and complicated a nature that I do not think any useful purpose would be served by introducing the particulars furnished to me regarding it. It would be next to impossible to calculate with any degree of precision the nitrogen contained in it, and I must therefore be content with stating that it comprised a generous daily mixed allowance of animal and vegetable food. Hitherto there has been an abstinence from alcoholic beverages, but during the six days in question the record before me shows that Mr. Weston has not been a follower of strictly temperance principles. With the subjoined analytical results the collection of data is completed, and upon a future occasion I will collate and comment upon the bearings they possess in relation to the mooted question—the source of mechanical power from muscular action.

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First twenty-four hours after the six-day walk.—Amount of urine passed, 1391·4 c.c. (49 oz.); specific gravity, 1051·4; free acidity, reckoned as oxalic acid, 1·89 gramme in 1000 c.c. (·828 grain in 1 oz.); dark-amber colour, and clear. Microscopic characters: A few crystals of oxalate of lime. Composition in 1000 parts:—

Water		936·08
Solid residue (dried at 240° F.) ...		63·92
Incinerated residue... ...	13·87	
Organic constituents—		
Urea	40·74	
Uric acid	1·44	
Other organic matters ...	7·87	50·05
Mineral constituents—		
Chlorine	1·69	
Sulphuric acid	2·99	
Phosphoric acid	2·57	
Soda	2·91	
Potash	2·59	
Lime	·24	
Magnesia	·18	
Loss...	·70	13·87
		63·92

Total quantity of solids excreted during the twenty-four hours—

Urea...	58·422 grammes	(801·45 grains)
Uric acid	2·032 „	(31·35 „)
Other organic matters	11·286 „	(174·14 „)
Chlorine	2·295 „	(35·33 „)
Sulphuric acid ...	4·298 „	(66·35 „)
Phosphoric acid ...	3·686 „	(56·78 „)
Soda...	4·077 „	(64·34 „)
Potash	3·728 „	(57·55 „)
Lime...	·348 „	(5·37 „)
Magnesia	·264 „	(4·01 „)

Body-weight, without clothes, 8 st. 11 lb.

Second twenty-four hours after the six day walk.—Amount of urine passed, 1022·3 c.c. (36 oz.); specific gravity, 1028·7; free acidity, reckoned as oxalic acid, ·93 gramme in 1000 c.c. (·407 grain in 1 oz.); amber colour, slightly turbid from deposit of lithates. Microscopic characters: Amorphous lithate of soda, with a few crystals of oxalate of lime. Composition in 1000 parts:—

Water		951·11
Solid residue (dried at 240° F.) ...		48·89
Incinerated residue ...	15·19	
Organic constituents—		
Urea	30·59	
Uric acid	1·21	
Other organic matters ...	1·90	33·70
Mineral constituents—		
Chlorine	4·97	
Sulphuric acid	1·25	
Phosphoric acid	1·81	
Soda	4·72	
Potash	2·41	
Lime	·30	
Magnesia...	·19	
		15·19
Less excess	·46	
		45·89

Total quantity of solids excreted during the twenty-four hours:—

Urea...	32·193 grammes	(496·85 grains)
Uric acid	1·277 „	(19·70 „)
Other organic matters	2·379 „	(36·70 „)
Chlorine	5·232 „	(80·70 „)
Sulphuric acid ...	1·318 „	(20·37 „)
Phosphoric acid ...	1·911 „	(29·47 „)
Soda...	4·967 „	(76·64 „)
Potash	2·534 „	(39·04 „)
Lime...	·317 „	(4·89 „)
Magnesia	·204 „	(3·14 „)

Body-weight, 8 st. 13 lb. 3 oz.

Third twenty-four hours after the six-day walk.—Amount of urine passed, 1718 c.c. (60½ oz.); specific gravity, 1027·4; free acidity, reckoned as oxalic acid, ·93 gramme in 1000 c.c. (·407 grain in 1 oz.); amber colour, and clear. Microscopic characters: A few crystals of uric acid and oxalate of lime. Composition in 1000 parts:—

Water		953·25
Solid residue (dried at 240° F.) ...		46·75
Incinerated residue ...	13·67	
Organic constituents—		
Urea	29·19	
Uric acid	1·12	
Other organic matters ...	2·77	33·08
Mineral constituents—		
Chlorine	2·88	
Sulphuric acid	2·12	
Phosphoric acid	1·83	
Soda	3·68	
Potash	2·52	
Lime	·20	
Magnesia...	·17	
Loss	·35	13·67
		46·75

Total quantity of solids excreted during the twenty-four hours:—

Urea	51·540 grammes	(795·26 grains)
Uric acid	1·976 „	(30·48 „)
Other organic matters	4·879 „	(75·31 „)
Chlorine	5·085 „	(78·38 „)
Sulphuric acid ...	3·745 „	(57·71 „)
Phosphoric acid ...	3·264 „	(50·30 „)
Soda	6·494 „	(100·14 „)
Potash	4·449 „	(68·66 „)
Lime	·359 „	(5·49 „)
Magnesia	·309 „	(4·77 „)

Body-weight, 9 st. 1 lb. 4 oz.

Fourth twenty-four hours after the six-day walk.—Amount of urine passed, 2214·9 c.c. (78 oz.); specific gravity, 1018·9; free acidity, scarcely appreciable; straw colour, and clear. Microscopic characters: A few crystals of uric acid. Composition in 1000 parts:—

Water		972·14
Solid residue (dried at 240° F.) ...		27·86
Incinerated residue ...	10·15	
Organic constituents—		
Urea	16·67	
Uric acid	·63	
Other organic matters ...	·41	17·71
Mineral constituents—		
Chlorine	3·63	
Sulphuric acid	1·10	
Phosphoric acid	1·17	
Soda	2·76	
Potash	1·35	
Lime	·11	
Magnesia	·08	
Less excess	·05	10·15
		27·86

Total quantity of solid matter excreted in the twenty-four hours:—

Urea...	37·655 grammes	(580·94 grains)
Uric acid	1·439 „	(22·21 „)
Other organic matters	·925 „	(14·28 „)
Chlorine	8·194 „	(126·43 „)
Sulphuric acid ...	2·503 „	(38·57 „)
Phosphoric acid ...	2·658 „	(40·00 „)
Soda...	6·603 „	(101·88 „)
Potash	3·056 „	(47·15 „)
Lime...	·261 „	(4·01 „)
Magnesia	·199 „	(3·08 „)

Body-weight, 9 st. 1 lb. 12 oz.

Fifth twenty four hours after the six-day walk.—Amount of urine passed, 1845·8 c.c. (65 oz.); specific gravity, 1024·6; free acidity, reckoned as oxalic acid, ·504 gramme in 1000 c.c. (·22 grain in 1 oz.); amber colour, clear. Microscopic characters: Crystals of oxalate of lime. Composition in 1000 parts:—

Water		954·04
Solid residue (dried at 240° F.) ...		45·96
Incinerated residue ...	13·56	
Organic constituents—		
Urea	21·93	
Uric acid	·72	
Other organic matters ...	9·75	32·40
Mineral constituents—		
Chlorine	3·74	
Sulphuric acid	2·46	
Phosphoric acid	1·69	
Soda	3·26	
Potash	1·66	
Lime...	·23	
Magnesia	·12	
Loss	·50	13·56
		45·96

Total quantity of solids excreted during the twenty-four hours:—

Urea	40·612 grammes	(626·61 grains)
Uric acid	1·347 „	(20·47 „)
Other organic matters	18·456 „	(284·68 „)
Chlorine	6·940 „	(107·08 „)
Sulphuric acid ...	4·559 „	(69·36 „)
Phosphoric acid ...	3·148 „	(48·57 „)
Soda	6·221 „	(95·99 „)
Potash	3·082 „	(47·55 „)
Lime	·424 „	(6·54 „)
Magnesia	·221 „	(3·40 „)

Body-weight, 9 st. 2 lb.

Sixth twenty four hours after the six-day walk.—Amount of urine passed, 2470·5 c.c. (87 oz.); specific gravity, 1017·18; free acidity, scarcely appreciable; pale-amber colour and clear. Microscopic characters: Crystals of uric acid, with a few crystals of oxalate of lime. Composition in 1000 parts:—

Water		972·73
Solid residue (dried at 240° F.) ...		27·27
Incinerated residue ...	10·94	
Organic constituents—		
Urea	14·05	
Uric acid	·79	
Other organic matters	1·49	16·33
Mineral constituents—		
Chlorine	3·47	
Sulphuric acid ...	1·10	
Phosphoric acid ...	1·57	
Soda	3·53	
Potash	1·19	
Lime	·12	
Magnesia	·06	
		10·94
Less excess	·10	
		27·27

Total quantity of solids excreted in the twenty-four hours:—

Urea	35·822 grammes	(552·70 grains)
Uric acid	2·000 „	(30·86 „)
Other organic matters	3·742 „	(57·74 „)
Chlorine	8·745 „	(134·93 „)
Sulphuric acid ...	2·767 „	(42·69 „)
Phosphoric acid ...	3·952 „	(60·98 „)
Soda	8·893 „	(137·21 „)
Potash	3·014 „	(46·50 „)
Lime	·321 „	(4·95 „)
Magnesia	·173 „	(2·67 „)

Body-weight, 9 st. 2 lb. 4 oz.

HEALTH OF LONDON AND OF SEVENTEEN OTHER LARGE ENGLISH TOWNS IN 1875.

THE Registrar-General has just issued his "Annual Summary of Births, Deaths, and Causes of Deaths in London and other large cities, 1875." This publication contains abundant and valuable materials for studying the wide variations in the death-rates prevailing in different urban populations. Among eighteen of the largest English towns the death-rate in 1875 ranged from 19·5 and 22·4 per 1000 persons living, in Portsmouth and Sunderland, to 29·9 and 31·5, in Manchester and Salford. These eighteen towns had in the middle of 1875 an estimated population of nearly six millions and three-quarters; nearly three millions and a half of persons were living in London, among whom the death-rate of the year was 23·7 per 1000. In the seventeen provincial towns the estimated population was nearly three millions and a quarter, and the death-rate was 26·8, or 3·1 per 1000 higher than in London. If the death-rate in London during 1875 had been as high as that which prevailed in seventeen of the largest provincial towns, nearly eleven thousand more deaths would have been recorded within the Registrar-General's London than actually occurred. This saving of life in London in 1875 was not exceptional. For many years the death-rate in the huge aggregated population of London has been considerably lower than that which has prevailed in a nearly equal population living in seventeen other of the largest English towns. In 1875 the death-rate in only two of those towns was lower than in London, whereas the London death-rate was exceeded in each of the fifteen others. Owing in great measure to the severely cold weather in the first quarter of the year and during a great part of November and December, the national death-rate in 1875 was above the average, and exceeded that which prevailed in recent years. The death-rate in London also showed an increase, for it was equal to 23·7 in 1875, whereas in the three preceding years it had not exceeded 21·5, 22·5, and 22·6 per 1000 respectively. It is important to know the cause of this increase in the death-rate, and whether it was due to the fatality of diseases upon which sanitary condition exercises an acknowledged influence. The death-rate from the seven principal zymotic diseases was equal to 3·9 per 1000 in London, against 4·9 in the seventeen provincial towns. To these seven zymotic diseases 13,411 deaths were referred in London during 1875, showing a decline of 2026 from the corrected average number in the ten preceding years, but exceeding by rather more than 2000 the number in 1873 and 1874. The increase of zymotic deaths in London in 1875 was almost entirely due to the fatal prevalence of scarlet fever and whooping-cough. The deaths referred to fever were 1232, and no less than 989 below the corrected average number in the ten previous years. The mortality from diseases of the respiratory organs in 1875 showed a large excess upon the high numbers in 1873 and 1874; the deaths from these causes exceeded the corrected average in the ten years 1865–74 by 2576. There is only one other feature of the London mortality in 1875 which space will allow us now to refer to: the deaths under one year of age were equal to 162 per 1000 births. Infant mortality, measured in this way, averaged 190 per 1000 in the seventeen other large English towns, and ranged from 133 in Portsmouth to 210 in Liverpool and Norwich, and 245 in Leicester. The health of London in 1875 bore favourable comparison with that of the other largest English towns, although the death-rate in the metropolis was higher than in either of the three preceding years, owing to the fatal prevalence of scarlet fever and whooping-cough, and to the exceptional mortality from diseases of the respiratory organs.

THE LANCET.

LONDON: SATURDAY, MARCH 25, 1876.

IT may be in the recollection of many of our readers that at a meeting of the Council of the College of Surgeons of England held in December, 1873, Professor HUMPHRY, of Cambridge, brought forward a notice proposing to open the Fellowship of the College to any Member of two years' standing, and that, on the motion of Mr. SIMON, the whole subject of the Fellowship examinations was referred to a Committee. We expressed unqualified disapproval of Professor HUMPHRY'S motion, for the reason that, if it were adopted, it would tend to lower the educational and professional standard of the Fellowship, and would open the doors to newly-qualified Members who could not have acquired the extended acquaintance with the science and art of surgery which is not only desirable, but absolutely essential, to all who aspire to the higher departments of surgical practice.

Although it is now considerably over two years since Mr. SIMON'S Committee was appointed, it was not until the 16th inst. that they presented their report to the Council. Even then the report was in many ways so unsatisfactory that it was referred back to the Committee for further consideration. Under ordinary circumstances the question might, for the present, be left to the care of the Committee, but some unmistakable manifestations of retrogression in the report constrain us to enter, somewhat prematurely, upon the discussion.

The Fellowship of the Royal College of Surgeons has always been an anomaly and a stumbling-block to medical reformers. To the College itself it is a valuable source of extra revenue; to the Fellows it is a mark of professional distinction. While, therefore, it is to the interest of the College to multiply the number of its Fellows, it is the desire of those who have already secured the diploma to keep the numbers down. Two powerful forces, therefore, are acting in opposite directions. The attempts to lower the examinational standard and to relax the regulations are met by indignant protests, and demands for more restrictions. The middle course may be assumed to be the safe one. The number of Fellows is small, compared with the host of Members, and the constituency of the Council is, therefore, small, and is diminishing rather than increasing. The propriety of increasing the number of Fellows, and thereby enhancing the representative character of the Council, will commend itself at once to most persons. Such a measure would prove still more effectual by minimising the possibility of the reprehensible practice of canvassing, that some members of the Council have been known to encourage.

The question of the regulations for the Fellowship has, however, another more important and more serious aspect, which more particularly interests us. The Fellowship examinations, as everyone knows, influence in a very great measure the nature and character of the instruction afforded at the medical schools. The high standard of knowledge required for both the first and second examinations for the diploma of Fellow has undoubtedly done much to induce students to work harder and longer at the subjects of human and comparative anatomy and physiology, and has stimulated them to apply themselves to some higher branches of medical science. The only legitimate objections that have, so far as we know, been brought against the present regulations are—first, the unanswerable one that surgical anatomy is not sufficiently insisted on at the second or pass examination; secondly, that it is difficult for those who are unable to remain six years *in statu pupillari* to acquire the distinction of Fellow within a reasonable time after their admission as Members of the College. The remedy for the first objection is simple; that for the second is not so apparent. The proposals of the Committee on the Regulations relating to the Education and Examination of Candidates for the Fellowship cannot be consistently entertained. To lower the standard of preliminary education, to shorten the period allotted to the study of anatomy and physiology, to abridge the curriculum by allowing those who have obtained the diploma of Member to complete their six years of study for the examination for the Fellowship in any manner that may seem best to them, to insist that none but Members of the College shall be admitted to the examination for the Fellowship, and thereby to prohibit candidates for the Fellowship passing the examination in anatomy and physiology at the end of their third winter session, are not, we venture to affirm, the best means of securing the objects in view. If the recommendations of the Committee were adopted, all the old regulations, good and bad, for the examination of the Fellowship, would be swept away. One serious evil would at once manifest itself. Students intending to present themselves for examination for the diploma of Fellow would, under the new regulations, instead of working at anatomy and physiology for three years, as at present, work for only two years. After passing their first membership examination they would then hurry through their hospital duties, in order to obtain the diploma of Member. It would be only after this that their troubles would arise. Preparation would then have to be made for the anatomical and physiological examination for the Fellowship. To return to the dissecting-room and to the physiological laboratory would then be impracticable, for many reasons. Dissection and practical experimentation would be impossible, so that the candidate would have to trust to book-reading for reviving the crude and scanty knowledge acquired in two years' distracted and desultory labour. Not only, therefore, would he lose the inestimable advantage of a third year's dissection, but he would be hampered by having to cram from books all the details of minute anatomy and the complicated facts of physiology. It is to be hoped that the Committee will give the matter more critical examination, and devise some means whereby the Fellowship may be obtained by deserving persons with less cost and inconvenience than at present.

THE new volume of Mr. SIMON'S Reports on Scientific Investigations opens with a paper "On Fever" by Dr. BURDON-SANDERSON of great interest and value. It is valuable for what it does not attempt as much as for what it

does. It is no endeavour to build upon imperfect generalisations a new theory of pyrexia. Of such attempts pathology has had too many. But it is a careful, critical discussion of the facts at present known with regard to fever, and conditions having more or less resemblance to fever, apart from the theories with which these facts have been especially connected. Although considered apart from theory, their bearing on theory is not neglected, and in the end we are not left without clearer light as to the directions in which a theory of fever may ultimately be looked for.

Disintegration of tissue, disturbance of temperature—these are the central facts of fever. To the elucidation of these investigation has been of late years directed frequently, but not sufficiently, for the facts at our disposal are still scanty and imperfect. SENATOR has investigated with great care in dogs the condition of fever produced artificially. He found, by comparing two periods of inanition of twenty-four hours each, rendered as nearly as possible identical save in the existence of fever in the one and its absence in the other period, that pyrexia produced at first a very slight increase in the discharge of carbonic acid, but a constant, marked increase in the elimination of urea. Towards the end of the process rapid loss of weight appeared, chiefly related to loss of water with some excessive discharge of carbonic acid. In twenty-four hours of pyrexia without food a dog loses 3·4 per cent. of its weight, the loss in health without food being not more than 1·6 per cent.

Clinical observation in man is of greater value, but of greater difficulty, for we have little information, Dr. SANDERSON insists, concerning the fundamental point of the inquiry—what quantities of urea and carbonic acid ought a person in normal health to discharge from his body when in bed and on fever diet? From the observations available, here also chiefly those of SENATOR, it appears that in the early stage of fever a patient excretes about three times as much urea as he would do on the same diet in health. A healthy man excretes the same quantity of nitrogen which he takes in, the fever patient wastes his own store. It is certain that this discharge of urea is not the result of pyrexia, from the facts, established by the observations of RINGER and SQUAREY, that it begins before the pyrexia, and reaches its maximum during defervescence. What is the source of this excess of nitrogen—does it come from the albumen of the formed tissue or of the fluids? The researches of SALKOWSKY have shown that in fever an excess of potash is discharged, not of soda; hence the conclusion that the nitrogen comes from a source which contains potash—i.e., the urea is not derived from the liquor sanguinis, which contains chiefly sodium salts, but from the albumen of blood-corpuscles or of muscle, or both. The increased discharge of colouring matter points in the same direction.

LEYDEN'S observations on the discharge of carbonic acid in fever show a continued increase in the amount discharged. Increased respiration will not account for this; it could only eliminate that already formed. There must be an increased formation of carbonic acid in the body. In this respect pyrexia in man presents a marked contrast to pyrexia in the dog. The excess of carbonic acid in fever is greater than can be accounted for by the disintegration of the albumen which supplies the nitrogen, and a large part must be derived from the consumption of material not containing nitrogen.

The second specific problem of fever is the production and discharge of heat. The temperature of the body is the balance of these two elements. Increased production of heat constantly occurs in health without increased heat of body. Elevation of temperature may be maintained although the production of heat is diminished. If we take as a measure of the heat-production in fever that which should result from the disintegration of the substances which are the source of the excreted nitrogen and carbonic acid, we are brought to the startling conclusion that, although compared with heat-production of an individual on fever diet the heat-production is excessive, it is not by any means greater than the heat-production of health. This is in accordance with the results of the experiments of SENATOR, who measured the amount of heat given off by dogs in fever and found it far below the amount given off in health. The facts, so far, therefore afford no support to the theory of increased "thermogenesis." In man, however, LEYDEN'S measurements of the amount of heat given off from the skin in fever have led to the conclusion that its production is augmented. LEYDEN asserts that the discharge is greatly increased, although it is not proportioned to the bodily temperature, for the discharge of heat may be less when the temperature is high than when it is lower, and may be normal when the temperature is above the normal, always attaining its maximum during the sweating of defervescence. Are LEYDEN'S facts susceptible of any other explanation than that which he offers? Dr. SANDERSON believes that they are. If the state of the heat-discharging surfaces remains the same, more heat must be discharged than in health, since the difference between the temperature of the body and of its environment is greater. The disintegration of tissue which occurs is itself thermogenetic. This source of heat, greater than in a person on fever diet, is not greater than in a person in health on ordinary diet. A careful examination of LEYDEN'S cases has led Dr. SANDERSON to the opinion that in no case was the discharge of heat from the surface excessive, except when the patient was sweating. Thus, the discharge of heat was relative, not to the activity of the heat-producing process, but merely to the activity of the sweat-glands. This escape of heat does not indicate any diminution of the temperature of the body. It may go on without any appreciable effect, except loss of weight.

The normal temperature of the human body has been found by JÜRGENSEN'S extensive observations to be in the rectum 99° F., with two daily maxima, one morning and one evening. The same investigator finds also that the *mean* temperature of the body is quite independent of the conditions which affect the production of heat, even where their influence is most powerful. Sixty-three hours' starvation did not modify it. Abstraction of heat by cold baths was followed by such a rise that the mean remained unchanged. A similar result followed muscular work. These facts afford strong reason to believe that increased or diminished temperature has no necessary connexion with increased or diminished production of heat. JÜRGENSEN found further that the diurnal variation of temperature in typhoid fever closely resembles that of health, the curves being parallel,

one above the other. Whatever be the explanation, the fact shows that the laws which regulate the temperature of the body are not upset in the febrile state. But in fever the temperature of the body is not maintained as it is in health, when heat is abstracted artificially. Hence it may be concluded that in fever the conformity to the law of temperature is not abolished, but weakened. In a healthy person a tendency exists towards excess, restrained by some controlling influence—an influence which, in fever, exists and only needs to be strengthened by quinine or aided by cold baths. In this way we can understand how the antipyretic agents, the action of which is so certain in fever, have no permanent effect on the temperature in health.

The main question remains, and must remain for the present, unanswered,—Do pyrexia and textural disintegration stand in any causal relation, or are both the consequence of a common cause? Is production or discharge primarily disordered? There are not wanting indications of the direction in which an answer must be sought. Production of heat is a function of living protoplasm, its discharge a function of the organs of circulation. Unfortunately we know too little of the relation in health of thermogenesis to temperature. Dr. SANDERSON believes that we shall have eventually to fall back on the protoplasmic changes as the cause of the regulation of temperature. Our knowledge on this point is, however, at present slight, and the little we do know of the regulation of temperature relates to the agencies which regulate its discharge.

An outline of our knowledge of these various elements which regulate discharge concludes Dr. SANDERSON'S paper. Four-fifths of the loss of heat in man is by the skin, one-fifth by the lungs. In dogs, however, respiration takes a much larger share in the process; in a hot atmosphere increased respiration keeps the temperature down, and it at once rises if the respiratory centre be lessened in activity by the administration of chloroform. The influence of the changes in the circulation on the discharge of heat is very great, and has been of late reduced to experimental demonstration. Paralysis of vessels in any one part of the body, causing increase of heat there, causes a fall in the temperature of the body generally, a fall which, even in the case of the rabbit's ear, can be accurately measured. General vascular paralysis, by division of the spinal cord, lowers (not, as MAREY teaches, increases) the force of the heart, and renders the animal immensely more sensitive to slight differences in the surrounding temperature. An animal must be clothed, even in a warm room, or it cools too much, and if the room be a little too warm, it passes into a state of intense pyrexia. MURRI has shown that under such circumstances the animal has lost the power of regulating the discharge of heat, and that when the rectal temperature was excessive the surface temperature was abnormally low. This clear demonstration of diminished discharge was combined with experimental proof that the heat-producing process was not in excess. The analogies between this condition and fever are not, however, sufficiently close to enable any theory of fever to be founded on it.

The facts, Dr. SANDERSON believes, justify the rejection, in all forms, of the hypothesis that fever depends simply on disorder of the nervous centres, controlling the liberation of heat on the surface of the body, so that by retention the temperature rises, and finally disorders the nutrition of the body. For, on the one hand, no disorder of the systemic functions, or nervous centres presiding over them, can induce a state that can be identified with febrile pyrexia; and, secondly, it is possible for such a state to originate and persist in the organism after the influence of the central nervous system has been withdrawn from the tissues by the severance of the spinal cord. The tissue-origin of fever is the basis on which Dr. SANDERSON hopes a theory of fever may eventually be constructed, but only after the normal relation between temperature and thermogenesis is fully elucidated. "The little that has been accomplished in this direction," he concludes, "is sufficient to show that the living substance of our bodies is delicately sensitive to variations in the temperature of its environment, so that slight deviations from the normal may produce effects of surprising magnitude."

A THOUGHTFUL mind is wont to regard the prodigality of Nature with awe and amazement; and the abundance of life, its transitoriness, and its appalling waste, have been the theme of poet and moralist alike. But it is when a man dies who has been endowed by Nature with great capacity, and who, stimulated by worthy aims, has spent a long life, when reckoned by the work he has done and not by the years he has counted, in the exercise and perfecting of his powers, who has come to do many things well, and some things surpassingly well, that, we are overwhelmed, as it were, with Nature's seeming wanton waste of power. All that comes of the well-trained intellect, the balanced judgment, the accumulated stores of erudition, the lessons learnt after long and laborious observation and experience, the play of a subtle and accomplished mind, or the cunning of a skilful hand, cannot, any more than the beauty of a man's character, be handed down to a successor, or written in the pages of a book. The things that belonged to the man—that individualised him, made him what he was, and rendered his life so valuable—are gone! Let his influence have been ever so great in his generation, let this influence, unseen but felt, be transmitted on to generations that knew him not and even regard not his memory, and yet how very much has apparently utterly passed away. The scientific and literary work that such a one did may live, the influence of a sweet character may long abide, but it remains nevertheless for his successors to toil along the self-same paths, and to encounter and overcome the same difficulties in their attempts to plant the standard of truth a little further ahead.

We are insensibly led to these reflections when we think of how much has been lost by the death of Dr. PARKES, the announcement of which will have been received with deep regret by all engaged in the pursuit of medical or sanitary science in every part of the world. Had he brought the same energy and ability to bear upon the art of destroying human life that he did in saving and prolonging it, he would probably have died a peer or titled man. Titular distinction, however, could add nothing to Dr. PARKES'S dignity. It belonged to very few men to have spent so true, devoted, and useful a life as he did. One of a small but distinguished band at University College, among whom his

memory will not easily fade, PARKES attempted a great deal, and what he attempted he did well. Intellectually he was endowed with rare qualities; he had fine analytical powers, a vast memory, and indomitable energy and industry. He aimed at a high standard, and nothing seemed to him too small or too insignificant that led to that object. Other men might have surpassed him in brilliancy or grasp of intellect, but none in mental honesty and truthfulness. The intellectual talent committed to his care was never sullied by any meanness, but always kept bright by noble uses, and it brought forth a hundredfold. From the time he entered the Army Medical Service as an assistant-surgeon of the 84th Regiment, in 1842, to his resignation in 1845, and from that time onwards throughout a life distinguished by usefulness to the day of his death, there was no difference—whether as a clinical teacher or hospital physician; whether as a writer of books himself, or the reviewer of other men's books; as a scientific worker, as an advocate of educational progress and reform in his own profession, as a practical sanitarian, and the very prop and pivot of the Netley school—it may be truthfully averred that PARKES all his life went about doing good, and pursuing truth for its own sake. To others than those who did not know the man it might seem like idle panegyric to say that the qualities of his moral supassed those of his intellectual character, and yet so it was. Dr. PARKES was one of the gentlest, most unselfish, and best of men; guileless and truthful himself, he was always hoping and believing the best of everybody, and ever ready to sacrifice himself in the interest of others; as for the sweetness of his character and the influence of his example, these were felt and acknowledged by all. His own pen has traced the outline of an imaginary sketch which he filled up and realised in his own person and character as much as any man ever did.

"Taking the word hygiene in the largest sense, it signifies rules for perfect culture of mind and body. It is impossible to dissociate the two. The body is affected by every mental and moral action; the mind is profoundly influenced by bodily conditions. For a perfect system of hygiene we must combine the knowledge of the physician, the schoolmaster, and the priest, and must train the body, the intellect, and moral soul in a perfect and balanced order. Then, if our knowledge were exact, and our means of application adequate, we should see the human being in his perfect beauty, as Providence perhaps intended him to be; in the harmonious proportions and complete balance of all parts in which he came out of his Maker's hands, in whose divine image we are told he was in the beginning made."

THE working class Hospital Saturday collection at Birmingham was not, says *The Times*, quite so successful this year as last. The number of factories and workshops which took part in the movement was rather more numerous, but the amount contributed, so far, is less. Up to closing time on Saturday night about £2640 had been paid in, which is some £140 less than at the corresponding period last year. The total collection in 1875 amounted to £3800, including the contributions of the licensed victuallers. This time it is not expected to exceed £3500 owing to the slackness of trade which prevails, more especially in the jewelry branch. The proceeds will be divided among the different medical charities of the town in the proportion of the work they have done during the past year.

Annotations.

"Ne quid nimis."

THE CROWN VACANCIES IN THE MEDICAL COUNCIL.

IT is impossible to think of the death of Dr. Parkes and of Dr. Warburton Begbie without at the same time thinking of the loss to the General Medical Council. As we have said elsewhere, Dr. Parkes's knowledge, experience, and influence were nowhere more beneficially utilised than in his place as one of the Crown representatives in the General Medical Council. It will be difficult to find a man with all the qualities so happily blended for usefulness in that sphere which Dr. Parkes had. The choice of the Government will be awaited with much interest. One thing is necessary, that we should have a man who can be independent, who thinks more of fostering medical education than of furthering the interest of mere corporations and schools which exist only to promote it. Parkes was an earnest reformer. He was unconnected officially with the competing examining bodies. He was not satisfied with things as they are. He believed it possible to make far more of medical students than has yet been made of them, and for their imperfections was disposed to blame methods of teaching rather than them. We want a man who will speak and think independently, and labour to get better results at our examining boards. There is conspicuously one physician in London who could fill Parkes's place with public advantage. Probably his other engagements would make it impossible for him to accept this duty. It would be invidious to indicate others. But it will be simply a public misfortune if a man of some independence is not selected. It would not be unsatisfactory if the Council contained one member at least who would worthily represent those recognised branches of special medicine, the teaching of which adds so much to the value of medical education, and is the only way of checking the growth of specialties. In Scotland the question is also very important. There is a veteran Scotch member of the Council—though one happily still vigorous and, we had almost said, young—who has done so much hearty work in it as to be almost entitled to be raised, though earnest even in his admiration of corporations, from being a representative of a corporation to being a representative of the Crown. We refer, of course, to Dr. Andrew Wood. There is Professor Lister, whose medical education was chiefly in London, who is an ornament of the Edinburgh University, and whose reputation is European; or there is Dr. Gairdner, of Glasgow, who would ably represent all that is good at once in the old systems of teaching and in the new. We must leave the matter with the Crown; but on no previous occasion has there been need for more conscientious care in filling up vacancies than in filling up the blank spaces left by the death of two able and congenial men—Parkes and Begbie.

UPPINGHAM AND UPPINGHAM SCHOOL.

IN a letter to *The Times* last week "Pater Alumni" asked "how long is Uppingham to be allowed to remain in a condition from which the school is obliged to fly as from a plague-stricken city?" and complained "that it was simply intolerable that the lives of hundreds should be endangered, or that they should be driven from their moorings, by the apathy, ignorance, or parsimony of its inhabitants." This letter called forth a rejoinder from "One of the Sanitary Authority," who denies that Uppingham is a "plague-stricken city," and rebuts the charge of "apathy, ignorance, and parsimony" by stating that "the town is already heavily burdened with debt incurred in carrying out sani-

tary works; these works are still going on, and will probably double the debt." We think it is to be regretted that "Pater Alumni" did not inquire more carefully into the history of the present outbreak before making the serious charges he has done against Uppingham and its sanitary authority. It is only fair to the town to state that previous to June 24th of last year the town was in a healthy state and free from fever; that the death-rate for the last twenty years has only averaged 15·8 to every 1000 of the population, whilst during the last four years it has sunk as low as 13·4. On the 24th of June of last year, however, the death was recorded of a boy from typhoid in one of the *school*-houses. No attempts were then made to trace the source of infection, but from the fact of its being quite an isolated case, both in the school and town, the probability is the boy contracted the disease previous to his return to the school. The boys left Uppingham for their holidays the day the boy died, and re-assembled about the middle of August. On the 2nd of September an explosion of sewer-gas took place in the cesspit of the house in which the case of typhoid, in the previous half-year, occurred, and which must therefore have received some, if not all, of the infected stools. This cesspit, which had received the excreta of forty boys for five years without being emptied, was only 43 feet from the well which supplied the house, whilst another cesspit was only 15 feet distant from it, and *the springs which supplied the well passed under the connecting drain of these two cesspits!* Three weeks after the explosion a boy fell ill of fever, which the medical officer of the school pronounced to be typhoid. Other cases followed in succession, and then the disease spread to another "school-house" in close proximity, and then became more generally diffused; and it was not till nearly thirty boys were down with fever that the sanitary authority received intimation of its existence in the school. It will thus be seen that the first fatal case originated in one of the school-houses, that the disease was at first localised to that house, and in that house there was a most abominable sanitary arrangement—namely, cesspits in close proximity to the water-supply—and that the next advance of the disease was to a house adjacent to the one primarily infected. The following facts must, we think, acquit the sanitary authority of Uppingham from the charge of "apathy, ignorance, and parsimony" which "Pater Alumni" has brought against them. The fever originated in the school, and spread there, owing to certain sanitary defects which the most ordinary foresight and prudence could have guarded against. In saying this we do not wish to press hardly on the school authorities; their conduct may fairly be attributed to ignorance of the ordinary principles of sanitary science—an ignorance, only too common in public bodies. In building their new houses the authorities had spared no expense, and no doubt thought that every sanitary detail would be attended to. But, unfortunately, this outbreak at Uppingham School, like that at Caius College, Cambridge, proves that special precautions ought to be taken in order to ensure the proper carrying out of sanitary details.

The school authorities have decided to remove the school for a time, and for this purpose have secured quarters at Borth, near Aberystwith. There is one point, however, we do not understand—that is, if it is considered necessary to remove the boys on account of the prevalence of fever at Uppingham, why advertisements are daily appearing in *The Times* stating that an examination will be held in the schoolroom *at Uppingham* for entrance scholarships on April 18th. Surely the school authorities do not seriously contemplate assembling boys from all parts of the kingdom, and exposing them to the dangers of infection. If they do they will incur not only a heavy responsibility, but show that, in spite of their recent experience, they are ignorant of the true nature of the disease, and the means by which it is communicated.

VIVISECTION.

A DEPUTATION recently waited upon the Home Secretary to urge upon him the necessity of losing no time in legislating upon this subject, and, judging from what Mr. Cross said in reply, it had been implied that the Royal Commission had been appointed simply for the purpose of shelving the question, an implication which the Home Secretary emphatically denied. Although we urged, from the first, the expediency of submitting the consideration of this question to a Commission, and indicated the direction in which legislation might be practicable, we have never concealed from ourselves the fact that the matter would be attended with much difficulty. The Government are, we think, perfectly right, therefore, in abstaining from taking any action until the report of the Commission has been carefully weighed and digested. It is extremely difficult to get at the exact meaning of the terms used. The physiologist would be ready to declare his utter abhorrence of all cruelty, but then he would have his own definition of the word. We hope Sir William Thomson was not justified in stating that revolting cruelties are sometimes practised in this country in the name of vivisection, although we may concur with him in reprehending the performance of experiments on animals in public lectures in illustration of truths already ascertained. The more deeply one thinks on the subject, however, the more difficult does it seem; for all but vegetarians lend their support to the infliction of pain and death to animals in order to support themselves. And a step further brings us to the subject of sport. Is a man justified, in order to save himself or his child from suffering, or in order to preserve life, it may be, in subjecting the lower animals to pain where there is a *bonâ fide*, reasonable, and good hope that by so doing he may achieve his object, and extend the benefit of his discovery to others? Cardinal Manning averred that he thought it impossible, seeing that the lower animals were killed for our food and employed for our use, to enunciate so broad a principle as prohibition of vivisection; but when the Cardinal laid it down as the expression of a great moral obligation, that we had no right to inflict needless pain, he begged the whole question. By all means lay down and enforce any restrictions that will prevent the infliction of *needless* pain. The present Government will do well, then, to avoid all hasty legislation, and we think that a careful study of the report of the Royal Commission will enable them to discover the nature and extent of the restrictions required to be embodied in a legislative measure.

SHIP-SURGEONS.

IN the course of last year we referred more than once to what we believed to be a laxity of supervision on the part of the Board of Trade with regard to the important matter of the quality of medical attendance on the inmates of foreign-going ships. The truth of our criticisms, and of the substance of published letters from different sources, was fully confirmed by a Parliamentary Return, asked for by Captain Bedford Pim, and published last June. By this return it was shown that during the previous two years no less than 224 persons had served in the British merchant service as surgeons whose names were not on the Medical Register, several of these persons being under twenty-one years of age. In October last a circular was issued from the Board of Trade, directing the attention of emigration officers and superintendents of mercantile marine officers to

certain enactments in the Merchant Shipping Act and the Passengers Act of 1855, compelling ship-surgeons to be *duly qualified* and *registered* medical men. We hope that the member for Gravesend, who has already done good service in this direction, will obtain some further information as to the medical service in the mercantile marine. We have good reason for believing that the above-mentioned circular has not hitherto received proper attention. There seems to be little doubt that, not only in smaller craft, as in the case of the Aberdeen whaler mentioned in THE LANCET of March 4th, but that also in fine foreign-going ships, carrying large crews and many passengers, the health of those on board is still committed to persons who are not only wanting in due qualifications and legal status, but who, judging from age and, in many instances, from the nature of their previous occupations, must be wholly unfitted for such responsibility.

NEEDLESS NOISES.

ONLY the sick know the wearing injury inflicted on the nervous system by needless noises. Among the worst of these nuisances are the monotonous sounds produced by traffic in the streets, by road-paving, stone-breaking, and, by no means least, dragging heavy rollers up and down an otherwise quiet thoroughfare several hours a day, under pretence of solidifying and leveling the ballast previously thundered on the roadway. After a few doses of this brain-irritant ave been exhibited the effect proves cumulative and almost maddening. Can nothing be done to mitigate at least the more manageable forms of this evil? It has become a grim pleasantry that the return of the London season is signalised by pulling up the paving in the principal streets and otherwise incommoding the public. Doubtless, to some extent, this is a matter of routine which cannot be broken through until vestries and local boards of health have the spirit to repair their thoroughfares a few weeks before it becomes absolutely necessary, so that the time to repair again may come round a little earlier. The error arose by driving off the repairs until the rush back to town compelled the expenditure, and the cycle will not be changed until it is *for once* antedated. But surely something might be accomplished by noiseless paving and other improvements to reduce the number and variety of inflictions under which the sick labour, and by which their chances of recovery are not infrequently seriously reduced. Laying down tan or straw is a device practicable only in extreme cases. The ceaseless wear and tear of brain and nervous system among the weakly and irritable should count for something, and receive the consideration it demands and deserves. It argues defective knowledge of pathological fact, or lack of carefulness, to treat so fruitful a cause of nervous and even mental weakness with indifference.

FAMILY INFECTANTS.

WE have repeatedly urged the wisdom and need of providing institutions to which servants and children might be sent at the outset of any anomalous illness likely to prove communicable to other members of a household, and we have suggested that the establishments should be so arranged as to supply all requisite comforts and nursing, whilst allowing the patient to remain under the observation of the private medical practitioner if that were desired. We question whether the perils to which families are at present exposed can be adequately realised. Servants are, without doubt, ceaseless contagion-carriers. They spend on an average two or three hours a week in the worst of crowded tenements and vitiated atmospheres. They return after their "Sunday out" from nests of fever, exanthemata, whooping-cough, infection, and filth of every kind. If precautions are taken against this obvious danger by employing only young women who have no "belongings" in the immediate neighbourhood, they speedily contract intimacies which create the source of mischief. How to deal with this evil practically is a social problem of great perplexity. It is idle to decree that servants shall not visit their friends and families. If nurses can be prevented from taking the children of their employers into the thick of the danger when they are sent out in their charge, that is probably as much as will be accomplished. Perhaps once in every twelve times a child is taken out by its nurse for the sake of health it is carelessly or wantonly exposed to the chance of infection. But, setting this aside, every general practitioner who has narrowly watched the working of the servant system must be painfully impressed with the reality of the perils to which we are pointing. Mothers of families and housekeepers, if they are alive to the danger, must frequently be alarmed on eliciting by judicious questionings that the nurse has just returned from the bosom of a family three or four of whose youthful members may be "down with the measles" or "sickening for the whooping-cough." In every household wisely administered the practice of "running home" for half an hour in the evening or "just stepping out to post a letter" should be resolutely interdicted.

THE COLLEGE OF SURGEONS AND ITS MIDWIFERY BOARD.

WE understand that both Dr. Arthur Farre and Dr. Priestley have resigned their posts of Examiners in Midwifery at the Royal College of Surgeons. Their resignations, however, do not take effect until after the forthcoming examination of candidates in May.

In the face of the memorial forwarded to the College by the Obstetrical Society, and signed by its President, it cannot but be felt that some explanation is necessary from Dr. Priestley in regard to the false position in which, if he officiates on this occasion, he will place the Society over which he presides.

The memorial, the text of which we lately published (Feb. 26), protests against the admission of persons to examination for the midwifery certificate who are not possessed of any other medical qualification, and represents very justly how injurious to the general interests of the public and the profession would be the admission of persons to the Medical Register so imperfectly qualified for medical practice.

A REUNION.

ON the 16th instant Mr. Erichsen gave a sumptuous dinner, at Willis's Rooms, to his old house-surgeons, and no fewer than thirty-two of them assembled to partake of the hospitality of their former chief. The dinner was in every way a great success, and indeed it was a gathering of no ordinary kind, and there was many a meeting of former college friends whom the cares of practice had separated for years. The host was supported on the right by Sir Henry Thompson, and on the left by Mr. Watkin Williams, Q.C., M.P., who was one of Mr. Erichsen's first house-surgeons. Besides these the company included Mr. Sampson Gamgee, Dr. Simpson, of Manchester, Mr. Berkeley Hill, Mr. Teevan, Dr. Bastian, Mr. Marcus Beck, and others. Professor Lister, of Edinburgh, was unfortunately prevented from attending. Mr. Erichsen, who was appointed full surgeon at University College twenty-six years ago, has had fifty house-surgeons. Of these five are dead, five are abroad, the address of one other could not be found, and one has lately left the profession, so that out of the total number who might have been present there were only six absentees. Mr. Erichsen's health was proposed by Sir

Henry Thompson, and was received with great enthusiasm by his guests, all of whom had doubtless often experienced before that hospitality which their former master is of all men capable of dispensing with geniality and grace, and had learnt not only to respect him for his great scientific attainments, but to regard him with affection for the kind sympathy which he has always been ready to show towards the young men who have worked under him.

Mr. Watkin Williams remarked in the course of the evening on the comparatively rare opportunities afforded to the medical profession for social gatherings, and said that in this respect the Bar set them a good example. This is quite true, and we should be glad to see the example of the Bar very largely followed; for such meetings of old friends on a perfectly equal footing, as this which Mr. Erichsen has been instrumental in bringing about, could not but be productive of kindly feeling and good fellowship.

STATUE OF PROFESSOR STOKES, F.R.S.

ON the 16th inst. the statue of Professor William Stokes was unveiled in the Examination Hall of the King and Queen's College of Physicians in Ireland, before a large and influential assemblage. The statue—one of the late Mr. Foley's—is of Carrara marble, upwards of seven feet in height, and stands on a plinth and pedestal of Sicilian marble; and the likeness, especially the side view, is most characteristic. Professor Stokes was thrice President of the College—namely, in 1849, 1850, and 1867; and has been Regius Professor of the University of Dublin since 1845. As a physician his reputation is worldwide; and his merits have been recognised by the Universities of Oxford, Edinburgh, and Dublin, and by many scientific societies. The statue is—to use Dr. Hudson's words—a tribute from his colleagues, former pupils, and his professional friends generally, expressive of their admiration of his talents, their gratitude for his written and oral teaching, and respect and affection for his professional character and personal worth.

THE CROONIAN LECTURES.

THE delivery of this annual course of lectures at the Royal College of Physicians was commenced on Wednesday last, the 22nd inst., by Dr. W. H. Dickinson, who chose for his subject "The Pathology and Relations of Albuminuria." In his first lecture Dr. Dickinson described in detail the minute changes occurring in the kidney in acute (tubal) nephritis and in chronic Bright's disease. He described in the former the occurrence of intertubular nucleation (in addition to catarrhal changes in the tubes) of greater or less extent, which in a few cases passes into fibrous tissue and leads to granulation of the organ. He had met with cardiac hypertrophy and increase in the thickness of the arterial walls in these acute cases, similar in kind (but less in extent) to the vascular changes met with in association with the granular kidney, the pathological changes in which he also fully described. The second lecture is to be delivered this day (Friday) and the third on the 29th inst.

ENTERIC FEVER AT BATH.

WE regret to learn that an outbreak of enteric fever has occurred at Bath, which is stated to have originated in contamination of the milk, or milk-cans, with polluted water. No fatal cases fortunately are as yet reported. Although the sanitary condition of the city itself may be pronounced good, and decidedly above the average of most towns, the same cannot be said of all its districts and suburbs. Not long since a serious outbreak took place among the villas on the Weston-road, which caused considerable anxiety at the time. It is to be hoped the sanitary authority of the city will pay special attention to these weak places in their armour. The systematic pollution of the numerous watercourses coming from the hills must be always a source of danger, and ought at once to be restrained. It is time too that steps were taken to purify the river Avon, the abominable state of which must injuriously affect the health of those living in the lower parts of the city. It is certainly a bad advertisement for a town professing to be a "health resort" to have such a drain in view of its railway station for passers-by to comment upon.

MR. HENRY ARNOTT, F.R.C.S.

WE are sorry to learn that Mr. Henry Arnott has resigned the appointment of assistant-surgeon to St. Thomas's Hospital, and is, we believe, also about to retire from the active practice of the profession. The news will cause much regret, not only to Mr. Arnott's colleagues, but also to the wide circle in the profession by whom he is so well known and highly esteemed. It is the more to be regretted if, as we understand, weak health is the cause of his retirement. Mr. Arnott attained a high position in the profession during the period of his connexion with the Middlesex Hospital, and his transference to the new St. Thomas's Hospital was a great gain to the staff and the medical school, who will feel his loss both as a teacher and a colleague. We cannot but hope that a period of rest may sufficiently restore his health to enable him to resume the practice of the profession which he adorns.

UNHEALTHY CAB-HORSES.

THE dangers of the streets are sufficiently disquieting, without the introduction of a new form of injury. Probably there is still some fragment of that police force in existence which we were, a few years ago, assured would suffice to secure every possible precaution for the public safety. Nevertheless, those who use hansom cabs frequently must have been a good deal alarmed of late by noticing the large number of horses worked in these vehicles suffering from a malady which, if not dangerous to those who ride behind them, is sufficiently disagreeable. Long strings of viscid yellow secretion from the nostrils are flourished in the wind, and, when a particularly ill wind will have it so, flung back in the face of the unlucky fare. This has actually happened within the last few days, and the animals affected with the loathsome malady are driven with impunity, either unnoticed or disregarded by the police, whose precautionary services have been paraded as so consolatory. We do not assert that these horses are "glandered," but they certainly suffer from an affection which ought to prevent their being worked in open cabs, to the annoyance and danger of the public, if of nothing more serious.

THE DUBLIN LOCK HOSPITAL.

THE surgeoncy in this institution, vacant by Professor Morgan's death, is sought for by some leading surgeons in Dublin, and also, strange as it may appear to English readers, by two physicians to hospitals. In the London Lock Hospital all the surgical officers are Fellows of the College of Surgeons, and have been selected for their special surgical attainments, as evidenced by their writings or success as clinical teachers.

THE COCA-LEAF.

WHATEVER may be the virtue of the coca-leaf in South America to increase the powers of endurance in prolonged muscular exertion, it seems to have lost much of its marvellous virtue when used in this country. A popular rumour

attributed Weston's success to its effect; but from his letter which we published last week it appears that he not only owes none of his power to its influence, but found that it rather lessened than increased his strength. It acted as an opiate, and forced him to sleep. A previous trial in America had the same result. The coca-leaf was tried extensively some years ago by Dr. Buzzard, in epilepsy and other forms of nervous disease, but with no striking results. Some patients while taking it described its effect as resembling that produced by wine or spirit; but there was no objective result to encourage its continued administration.

SURGEONS PRACTISING DENTAL SURGERY.

AT a meeting of the new Association to which we have frequently drawn attention of late, held on Wednesday night at the rooms of the Medical Society (where permanent accommodation has been obtained), it was unanimously resolved that, as the title of "Legally Qualified Dental Surgeons" does not convey a definite idea of the qualifications necessary for membership, the Society shall in future be called "The Association of Surgeons practising Dental Surgery."

SUBCUTANEOUS OSTEOTOMY.

LATELY, at the London Hospital, Mr. Maunder has practised section of bone with chisel and mallet in three instances. In each case the femur was the bone divided. In one case (that of an adult) slight suppuration occurred, while in two (a child and an adult) primary union took place. The shaft of the bone was divided to remedy distressing deformity, and the patients are now in a position to become useful members of, rather than remain burdens on, society.

THE practice of vending or eating oysters during the spawning season is justly condemned. Although fully believing that the consumption of the bivalve during the close season may prove at times injurious to health, we were not aware until lately that it was held to be productive of a specific disease. It was alleged, however, last week, before the Town Commissioners of Douglas, Isle of Man, that a mild epidemic of typhoid which prevailed in the island last year was caused by an unseasonable partiality to oysters. "Investigation had proved that the illness in question had been produced by persons eating oysters during the spawning season." The realisation of this new and hitherto unsuspected danger appeared to be somewhat startling to the Town Commissioners, who incontinently decided on demanding legal enactments for meeting the peril which threatened them. An extension of the measure now before Parliament, providing against the sale of oysters during a certain period of the year, to the Isle of Man, would probably be easily obtained by petition.

SCARLET FEVER would appear to have been somewhat fatal in Nottingham towards the close of the past year. In December, 1875, 65 deaths were registered from the disease. The town authorities some time since erected a hospital for the reception and isolation of patients, who were charged a small fee for their maintenance according to their circumstances. The institution was found to work very well. The corporation have now added a complete apparatus for disinfecting articles of clothing which have become contaminated, and the local press wisely draws the attention of the inhabitants to the protection against danger offered by the process of disinfection. The comprehensive measures adopted in the town have been successful in confining the fever within very narrow limits.

THERE has been a great deal of grumbling for a long time in Goole respecting the quality of the water supplied to the town, and the dissatisfaction of the inhabitants has now culminated in a protest and memorial to the Local Government Board. A crowded meeting has been held, when some severe strictures on the local board were made, and a memorial to the central authority was unanimously adopted, setting forth that the town has for years suffered from an inadequate and impure water-supply, and praying that immediate attention be given to the matter. The case of the petitioners is certainly supported by the fact that the death-rate from the zymotic class of diseases has been remarkably high in the town for the last two years.

A PRELIMINARY inquiry into a very painful case under the Lunacy Act was held at Nottingham last week. Mr. George Goforth Wyer, a surgeon, was summoned in the first instance for keeping a lunatic in his house, the said lunatic being his sister, without having obtained the requisite order and medical certificates. He was further charged with wilfully ill-treating and unlawfully neglecting the said lunatic. Dr. Tate, of the Coppice, Nottingham, who had visited the lunatic pursuant to an order of the Lord Chancellor, gave evidence of the condition of the woman and of the state of the room in which she was confined. The defendant was committed for trial, bail in a small amount being accepted.

THE result of a recent inquest held before the borough coroner at Wigan adds another urgent plea for the registration of midwives. The wife of a colliery labourer, who had had no medical attendance during her confinement, died through shock to the system from the treatment she received at the hands of an ignorant midwife, who, learning the mischief she had committed, deserted the woman until death had ensued. A verdict of "Manslaughter" was returned against the midwife.

As will be seen by an announcement in another column, the managers of the Glasgow Royal Infirmary intend to use the powers conferred on them to institute a school of medicine in connexion with the infirmary, which contains 570 beds. The managers are prepared to appoint teachers in the several branches of medical education which go to form the recognised curriculum of study, and the elections are intended to take place in May next.

THE *Pall Mall Gazette* reports outbreaks of enteric fever and scarlatina at Greenock. With regard to the cases of enteric fever, there is good ground for believing that in upwards of twenty cases the disease was directly communicated by contaminated milk. Of the cases of scarlatina, there is also reason for believing that several have been caused by the use of milk from a farmhouse where no fewer than four persons had suffered from the disease.

WE learn that Mr. Fairlie Clarke has resigned the appointment of assistant-surgeon to the Charing-cross Hospital, and intends to devote himself to general practice. There is not such an excess of rising surgeons in London that we can well spare two esteemed assistant-surgeons of hospitals in one week.

WE are glad to notice that Surgeon-General C. A. Gordon, M.D., C.B., an enterprising and energetic officer, who has seen a good deal of service and hard work, has been gazetted Honorary Physician to the Queen.

WE regret to state that the latest accounts of the condition of Sir J. Cordy Burrows, of Brighton, leave no room to hope for other than a fatal termination to his illness.

THE deaths registered in London last week amounted to 1546, giving an annual rate of mortality of 23 per thousand. There were included 69 deaths from measles, 35 from scarlet fever, 9 from diphtheria, 84 from whooping-cough, 30 from different forms of fever, 16 from diarrhœa, and 351 referred to diseases of the respiratory organs. One death only from small-pox was reported. The returns from 19 other large English towns for the same period give Brighton the first place, with a death-rate of only 16 per thousand, while the last on the list is Plymouth, with 31 per thousand.

REPORT
OF
The Lancet Commission
ON
LUNATIC ASYLUMS.

METROPOLITAN DISTRICT ASYLUMS: LEAVESDEN, CATERHAM, AND HAMPSTEAD.

THESE are not "asylums" in the legal sense of the term; they are "workhouses within the meaning of the Act," and under the jurisdiction of the Local Government Board. They have been professedly provided for the reception of cases deemed chronic and incurable. It would, therefore, be impossible to class them among the institutions intended to be remedial agents in the treatment of insanity. Our interest in such establishments should be almost exclusively humanitarian, rather than professional. The conditions do not, however, admit of their being regarded purely in this light. They occupy a position intermediate between the workhouse and the asylum, and to some extent combine the evils and defects of both. There is a widespread feeling that workhouses are not suitable places of residence for the imbecile, the idiotic, and the incurably insane of the pauper class. There are doubtless ample grounds for this impression. The care and discipline required for these sufferers call for special appliances and methods of supervision, training, and treatment, which cannot be provided in a general workhouse. Nor is it desirable, in an economic and prudential sense, that an abode for able-bodied paupers should be made the subject of such sympathy and solicitude as must needs be centred on a place of refuge for the hapless victims of mental defect, decay, or disease. It would be advantageous, if it were practicable, to eliminate even the sick poor and the infirm from the ordinary class of paupers, and to treat their maladies and minister to their infirmities apart from the herd of idle dependants, the parasites of society, for whom there must always be tolerance rather than commiseration. Nevertheless, if workhouse asylums for the insane are to be made the depositories for troublesome old people who throng the "infirm wards" of poor-houses and unpleasantly experienced paupers who haunt the board-rooms of metropolitan parishes, we fear there will be some reason to regret their existence. It is not so much a question whether these poor creatures are better cared for in asylums like those at Leavesden, Caterham, and Hampstead, but whether it is right to allow people who are not insane to be so described, even for the sake of placing them in better quarters. It is impossible not to recognise the presence of a considerable number of "cases" in these asylums which are not lunatic. They may be weak, dirty, troublesome, but they are certainly no more affected with mental disease than those whose powers of mind have always been small, or are almost spent, can be said to be the subjects of morbid processes.

There are obvious objections to the classing of aged and infirm persons and idiots as subjects of insanity. The procedure is no doubt convenient. It enables boards of guardians to weed the wards of their workhouses of cases which require expensive nursing. By calling the aged and peevish paupers of both sexes insane, and removing them to an institution where the requisite care-taking can be done in the lump, they save expense, and, if the transfer be accomplished cleverly, they may also take some credit for humanity. Then, again, by draughting the idiots to an asylum for imbeciles, the cost of their education at suitable training establishments is saved, and an Act of Parliament evaded. These are possibilities not to be despised from the guardians' point of view, but we venture to think they are of a nature to call for the jealous watchfulness of public opinion.

We will not attempt to disguise the anxiety which our inquiry into the condition and working of these metropolitan asylums has awakened. It would be difficult to conceive of a system affording greater facilities for the wrongful treatment of troublesome paupers than that which permits their removal to institutions of this character under mere formal certificates, partly puerile and partly fallacious. We hold it to be an axiom of justice and real economy that every dependant upon the bounty of the State should be regarded as a ward to whom the administrative authority owes the recourse to every legitimate expedient which can be reasonably expected to relieve and, if possible, restore. Except in the lowest forms of idiocy, training may work wonders. It should not be permitted to any board of guardians to evade the expense of such training by placing idiots in an asylum for imbeciles. The like obligation requires that no infirm person of weak intellect should be put away in one of these heterogeneous crowds even on pretence of humanity, unless decidedly demented. Nor is this the worst aspect of the case. We shall have more to say hereafter on the use of asylums for incurable lunatics, but we may at once assert that it would be an abuse of such institutions to make them the excuse for neglecting the last endeavour to cure while recovery is possible. We are aware that not a few persons who should be better informed entertain, and even do not hesitate to express, a strong opinion that insanity is generally incurable. Unfortunately, some who cherish a belief so demoralising occupy positions in which they are enabled to cast a baneful influence over the effort to carry out a system more enlightened. Notwithstanding the pertinacity with which some of these obstructives hug their gloomy convictions, and the extended experience they plead in support of their enervating opinions, we have no hesitation in asserting that any classification which proceeds on the assumption that cases of a certain class stand beyond the pale of hope is wholly and disastrously indefensible. It does every now and again happen that the supposed victims of incurable mental disease recover. Perhaps the miraculous restoration of confirmed lunatics to society would occur more frequently if the endeavour to bring about recovery were not so soon abandoned. We will go further, and suggest that possibly recoveries of the class might be recognised as less remarkable if they were more carefully looked for. Of course, if institutions where paupers can be maintained at something like one shilling or one shilling and twopence a day, are placed at the disposal of local boards, they will afford a facile mode of getting rid of such cases. It may be contended that, as the State allows a grant in aid for each inmate of a regular asylum for lunatics of four shillings per head, it would be cheaper to send doubtful cases to a curative establishment where the cost of maintenance will average about ten shillings and sixpence a week, less the four shillings, as contrasted with seven shillings or seven shillings and sixpence without any such allowance. This is no doubt true so far as the comparative cheapness of sending a patient to a "lunatic asylum" or a "district workhouse asylum" is concerned. But this is not the comparison we desire to draw. In every district there are troublesome paupers perfectly well known to relieving officers and boards of guardians. Some of them are heads of families. It must be convenient to put away these objectionable and no doubt impracticable people in asylums like those at Leavesden, Caterham, and Hampstead. Habits of drunkenness, eccentricity, fits of ill-temper, or any one of a score of other excesses, will afford ground for such a method of disposing of troublesome adults, and the happy consequence is

that an obligation to support the family has been evaded. We think it would be quite possible to find a percentage of cases at the Metropolitan asylums which fall under the description, as regards their nature, if not the motive of their confinement, which we have indicated, and we venture to suggest that the matter is one which calls for inquiry.

We do not propose to describe the workhouse asylums as we have described the lunatic asylums properly so called. It would be impossible to speak of "treatment" or compile statistics of "results." It will suffice to state generally the impression we have received on visiting these institutions and examining their arrangements with the necessary minuteness. The buildings at Leavesden and Caterham are well adapted to their purpose. That at Hampstead is a temporary erection—an old series of corrugated iron huts provided for use in an epidemic of small-pox. It was not without effect that Dr. Lockhart Robertson pleaded before the Medico-Psychological Association, at the inaugural meeting held at Edinburgh in 1866, for the application of the pavilion system to public asylums for the insane. Leavesden and Caterham were built on the same plan, and it is one which, except that it may be somewhat unnecessarily scattered, well realises the general scheme proposed by Dr. Robertson, and afterwards published in vol. xii. of the *Journal of Mental Sciences*. The capacities of the two asylums as regards air space and superficial area are ample, provided always that a tendency to overcrowd the wards — noticeable particularly at Caterham — is checked before it becomes very serious. The general arrangements are satisfactory. Here and there the Poor-law instinct of cheeseparing makes itself apparent too plainly in the matter of clothing, and to some extent even in regard to the dietary. The effort to save expenditure is unmistakably obvious. But, looking at the provisions as a whole, there is not much to criticise. We think the committees of Leavesden and Caterham deserve credit for economising the ratepayers' money quite as much in securing the largest return for their expenditure as in avoiding unnecessary outlay. Leavesden is the older institution; it was opened in 1870, and is perhaps the better provided of the two. Leavesden affords shelter to 1804 inmates, Caterham to 1868. The attendance is fair, but would be deficient in strength, even on the assumption that chronic and quiet cases do not require close supervision, if the proportion of docile—perhaps it would be better to say *sane*—inmates was not considerable. As a matter of fact, the domestic business of these establishments might possibly be carried on with even less paid assistance were it not desirable to make a show of strength and vigilance. We think the present proportion of attendants—one to thirty or forty patients—is untenable. It is either too small or too great. If the patients are what they are said to be, the staff at both establishments ought to be increased; if they are what they seem, a few pounds might be saved by reducing the corps of observation and superintendence. If any such saving is effected, it might be desirable to spend the money in towels and tablecloths, which are none of the best in quality and apparently deficient in quantity. We think the use of seclusion in these institutions entirely inexcusable. The only violent cases are those liable to periodic or occasional outbreaks, and surely these might be provided for by a judicious distribution of the attendants. The use of padded rooms is, of course, almost entirely restricted to the safe-bedding of epileptics and infirm patients who fall about and injure themselves. The medical treatment is almost wholly physiological. It can scarcely be anything else in institutions devoted to inmates of the class with which these workhouse asylums are crowded. The furniture of the two houses is good, and laudable efforts have been made to give an air of comfort to the dormitories and day-rooms, the area and proportion of which leave little to be desired. The airing courts are somewhat bare, but the asylums are so well situated that prospect and surroundings are equally satisfactory. The sanitary provisions seem equal to the requirements. The system of earth-closets is a failure, and ought to be abandoned, and, as the water-supply is in each case abundant, no difficulty could attend the adoption of a cleanlier and less troublesome method of disposing of the sewage. There are means for isolation in case of infectious disease at both institutions, and the block system of building affords a large measure of permanent security. The general principles of treatment are humane and considerate. Walks around the neighbourhood, associated amusements and appliances for the diversion of the patients by books, pictures, and games in the wards, are duly provided.

The case of Hampstead is peculiar. It is composed, as we have said, of a series of buildings constructed of corrugated iron, lined with boarding, and packed with felt in the interspace. It is well arranged on the pavilion principle, the blocks being placed at intervals on either side of a central connecting corridor. The building has only one storey throughout. The cubic capacity of the wards is sufficient, but the value of this fact is much reduced by the crowding of beds, many being placed not more than eighteen or twenty inches apart. As is well known, under such circumstances the measurement of cubic space counts for nothing. The lower strata of the atmosphere in an apartment are those chiefly concerned in the supply of respirable air to sleepers. If some fifty or seventy patients are discharging carbonised air from their lungs at intervals of little more than three feet on the same level, and breathing back the atmosphere thus vitiated, the strata of pure air high above them are of only secondary importance. The number of beds should be reduced considerably. Regarded as a temporary shelter, the asylum answers its purpose fairly well. The notion of allowing it to be treated as a permanent building should not be entertained for an instant; and it is doubtful whether the site, with its dropping level and scanty area, would be suitable for an edifice which must needs involve a large expenditure.

The management of these workhouse asylums is practically in the hands of their committees. The medical superintendents are resident medical officers, and nothing more. The committees rule by a complicated executive staff of "principal officers." The attendants and servants of the establishment are nominally under these principal officers, but even they can appeal to the committee. In so far as the metropolitan asylums are, or claim to be, anything more than workhouses, this assumption of control by lay managers is manifestly absurd and unintelligible. But we are not disposed to regard them in any other character than that of misapplied almshouses and refuges. Looked at from this point of view, beyond the fact that a considerable proportion of the inmates are not insane enough to justify detention in any asylum, and their being so detained is not only wrong in itself but vitiates the statistics of insanity in the country, there is not much about Leavesden, Caterham, and Hampstead to which we need take exception. The inmates are contented enough. They work a little, and pass their monotonous lives tranquilly. Probably many of the middle-aged, and even young, men who lounge and brood their days away in comparative idleness prefer such an existence to the earnest and anxious life of toil which would be their lot in the outer world. Where guardians, ratepayers, and paupers are so well satisfied it is perhaps ungracious to suggest that the Commissioners in Lunacy should prosecute a more rigorous inquiry, and form a more independent judgment on the cases they encounter. We have appended averages of "numbers resident," of "deaths," and of "recoveries." They are not of any great value, considering the populations and the class of persons to whom they relate. All praise is due to Dr. Shaw at Leavesden, to Dr. Adam at Caterham, and Dr. Millson at Hampstead, for the attention bestowed on their "patients." The general health of these poor people is zealously cared for, and their physical condition does credit to the medical officers of the institutions in which they reside; but the practice is not mental medicine, and we question whether any change short of an entire remodelling of the system of "workhouse asylums" could make it so. We reserve further remarks on these important topics until the close of our inquiry. The medical superintendents of the three asylums visited have our best thanks for information and courtesy.

	LEAVESDEN. Since opening in 1870.	CATERHAM. Since opening. in 1871.	HAMPSTEAD. Since opening in 1873.
Average number resident... ...	1465	1632	518
Average number of deaths	175	210	63
Average number of recoveries ...	13	29	26

Correspondence.

"Audi alteram partem."

THE COLLEGE OF SURGEONS AND ITS MIDWIFERY BOARD.

To the Editor of THE LANCET.

SIR,—I am anxious to avoid all misunderstanding as to the reasons which led me to resign my seat at the Midwifery Board of the Royal College of Surgeons.

Every personal feeling moved me to retain that seat; but the higher claim of allegiance to my profession, coincident, as this appeared to me, with the public interest, left me no alternative.

It will put the case, in so far as it concerns me, in the clearest light if you will be good enough to print the letter which I felt it my duty to address to the Council of the College.

I am, &c.,

Grosvenor-street, March 20, 1876. ROBERT BARNES.

(COPY.)

To the President, Vice-President, and Council of the Royal College of Surgeons, England.

Grosvenor-street, March 16, 1876.

GENTLEMEN,—The duty imposed upon the Midwifery Board to examine for the College licence in midwifery "persons" who shall not be required to submit to an adequate examination in medicine and surgery has compelled me to reconsider my position as a member of that Board.

The Council calls upon the Board to aid in placing on the Medical Register "persons" possessing only fragmentary medical skill, but who will, notwithstanding, acquire a practical, if not legal right to practise far beyond the limits of their qualification.

Knowing, as I do, that obstetrics is an integral part of medicine; knowing that it cannot be rightly understood or safely practised without a fair knowledge of the other parts of medical science; and feeling deeply the injustice and danger of making women and children the subjects of inferior medical skill, I cannot reconcile it to my sense of right to assist in carrying out the College charter in the spirit expounded by counsel.

With extreme regret, but without hesitation, I resign the office of Examiner in Midwifery to your College.

I have the honour to be, Gentlemen,

Your most obedient servant,

ROBERT BARNES.

PUNCTURE OF THE TESTIS IN ACUTE ORCHITIS.

To the Editor of THE LANCET.

SIR,—A case of acute orchitis occurred in my practice at the Middlesex Hospital, in which I had failed to relieve the patient of the intense pain he was suffering. The testicle was not greatly swollen, but it was very hard; and the scrotum, which was thin, was unusually ruddy. I punctured the testicle, at two or three points on its anterior and outer aspect, with a bistoury one-tenth of an inch wide, to the depth of about four-tenths of an inch. The pain almost immediately began to subside, and convalescence commenced. I punctured the testicle, acting on the same principle that I should perform iridectomy in acute glaucoma; and I assume it is on this principle that Mr. Smith bases his treatment. Those who have watched the progress of ophthalmic surgery during the past five-and-twenty years will remember the prejudice that existed against iridectomy—a prejudice that has yielded to extended experience, but a prejudice which doubtless beneficially acted in controlling the proceedings of the mere imitators of the operations of truly scientific surgeons; I therefore venture to hope that this question of puncture of the testis in acute orchitis will receive a calm and fair consideration. In my humble judgment it is a question that involves important surgical principles, and is not to be settled either by ridicule on the one hand, or by limited personal experience on the other.

I remain, Sir, your obedient servant,

T. W. NUNN,

March 11th, 1876. Surgeon to the Middlesex Hospital.

THE DENTAL PROFESSION AND THE ODONTOLOGICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—I have read carefully Mr. Cartwright's letter in your last issue, as well as the statement of the principles and objects of the projected Association of Legally Qualified Dentists, and with every desire to be convinced of the contrary, I am sorry to say I find no valid *raison d'être* for this new Association, but rather, I regret to conclude, that it is calculated to defeat the ends which Mr. Cartwright and his coadjutors have in view. Every one of the objects of the Association has been and is consistently and continuously striven for with a large measure of success by the Odontological Society. It has already established "an improved code of ethics"; and although it might, perhaps, be possible to show that now and then a member has steered dangerously near the limits of professional law, I challenge contradiction of the assertion that the members of the Odontological Society will compare favourably with the members of any medical society. The Society has not only "endeavoured to encourage a higher educational standard, both general and professional, for those who practise the special branch of dental surgery," but has been mainly instrumental in instituting a special qualification for dentists, and in devising an admirable and complete curriculum of study for candidates. In addition, dental students will shortly be required to pass a preliminary examination in arts similar to that which is now undergone by medical students, and it cannot therefore be said that general education has been neglected.

Mr. Cartwright is now a member of the Council of the Odontological Society, and has been from the first one of its most active and valuable members. He is aware that the laws of the Society are not unchangeable, and if he thinks that "a qualification ought to be a *sine qua non* of membership of the Odontological Society," it is a pity he does not propose that this condition be imposed for the future. If good reason can be adduced in favour of the change (and I am inclined to think it can), there need be no doubt it will be adopted by the Society. So with regard to laxity in administration of the laws. The bye-laws of the Odontological Society are clear and strict in inculcating professional etiquette, and since I have held the office of secretary to the Council I am not aware of any instance in which violation of the laws has been permitted, nor am I cognisant of any complaint upon the subject which has not received due attention.

If one of the main objects of the Association be, after all, to combat the efforts of the committee appointed by the Manchester meeting to which Mr. Cartwright refers, it is to be regretted the fact has not been stated. I agree with Mr. Cartwright that the admittance of all persons practising as dentists to legal registration, whatever their antecedents may have been, cannot tend to the elevation of the profession; but I, with many others, believe that the scheme of the committee stands no chance even of being entertained by the Legislature, and therefore opposition to it is uncalled for.

The new Association will tend to defeat the aims of its promoters in several ways: it will lead to disunion in the profession by alienating a large number of licentiates in dental surgery, comprising many honourable and eminent practitioners; it will depreciate the value of the dental diploma in the estimation of those entering the profession, and thus will incline a still greater number than at present to obtain a smattering of professional education, and commence practice without undergoing examination, or obtaining any qualification whatever.

I remain, Sir, your obedient servant,

HENRY SEWILL, M.R.C.S., L.D.S.

Wimpole-street, March 10th, 1876.

Obituary.

PROFESSOR PARKES, F.R.S.

BEFORE we had recovered from the grief caused by the death of Begbie, the air was filled with ominous rumours that "Parkes was ill," so ill that his life, never suspended on a very strong thread, was despaired of. On Wednesday, the 15th instant, the worst fears were justified, and the world was poorer by the death of Edmund Alexander Parkes. While he was a man so gentle that anybody in earnest might approach him, he was at the same time so wise in council, so disciplined in spirit, so learned in medicine, and withal so able in administration, that Governments looked to him for help. It is not easy to put into a limited space the work of Parkes's life and the chief qualities of his character. But these ought to be recorded, for the comfort of those who mourn over his death and for the instruction of those who may wonder how, in a space of fifty-six years, a private man can gather about him such an aroma of respect and affection as attaches to the name of Dr. Parkes.

We have little to record as to the boyish days of Parkes. He was born near Birmingham, and received his education, we understand, where Coleridge and Charles Lamb received theirs, at the Bluecoat School. He was nephew of the late Dr. Anthony Todd Thompson. He was a distinguished student at University College; and while a student he assisted his uncle in his laboratory. At a later period he lectured for him on Materia Medica and Medical Jurisprudence. Honours fell thick upon him at the London University. When he passed his first M.B. in 1840 he was exhibitioner and medalist in anatomy and physiology; the same in chemistry; medalist in materia medica. When he took his M.B. in 1841 he was medalist in physiology and comparative anatomy, and he took honours in medicine.

Dr. Parkes entered the army as an assistant-surgeon of the 84th Regiment in April, 1842, and resigned the service in September, 1845. He went to India, and it was during this time that he made a series of pathological observations on dysentery, which he subsequently incorporated in a small work on that subject. In 1855 he was selected by the Government, at the time of the Crimean war, to organise and conduct a hospital, which he established at Renkioi, on the left (Asiatic) bank of the Dardanelles. On the investigations that followed the disastrous events connected with that war we need not dwell; but one of the results that flowed out of the recommendations of the Royal Commission, presided over by the late Sidney Herbert, was the foundation of the present Army Medical School. Probably there was no one at that time so well fitted to fill the chair of Hygiene as Dr. Parkes, and with the indomitable energy and conscientious character that marked all he did, his appointment was more than justified, for he threw himself heart and soul into his work. From October, 1860, when the school was first opened at Fort Pitt, Chatham, up to the time of his death at Netley, he laboured at his post in the lecture-room and laboratory. His annual contributions on Hygiene to the Departmental Blue-books formed the most valuable feature in them, for he laid all the publications of the period, home and foreign, under contribution, and as specimens of précis-writing alone they were remarkable for the variety, clearness, and soundness of the information conveyed. The amount of laboratory work that he performed was, in the aggregate, enormous. Not only in the way of instructing those who attended his course, but in conducting a series of analyses and experimental observations of various kinds, Dr. Parkes rendered great and essential service to the State and the Soldier. In connexion with his friend General Eyre, on what was called the "pack committee," he was mainly instrumental in getting the new valise equipment introduced into the army as a substitute for the old and objectionable pack, and it is not generally known that in some of the recent marches undertaken and completed by soldiers belonging to Aldershot, a reference to which was made in some of the public journals, this very valise equipment was used, and successfully withstood the test. As a teacher Parkes was admirable—so clear, practical, and painstaking, that every candidate and medical officer who attended his course of instruction was thoroughly impressed with the value of the information he acquired. Dr. Parkes was a graceful and excellent speaker and a very interesting lecturer, and he was one of the best and most experienced of medical examiners. At Netley he was regarded as the great prop of the school, and his loss at that institution will long be very keenly felt. His personal influence with students and medical officers was great and unique in its way—in fact, he was universally beloved and regarded with the utmost respect by young and old alike.

Parkes's influence was thoroughly well deserved. The explanation of it will be found in the richness of his mind, in the sweetness of his nature, in his industry, and in the multiplicity of his relations. Never was there a happier mixture of "sweetness and light" than in Parkes. And he had relations with a great metropolitan school of medicine, with a metropolitan university, with the public service, with a military medical school, with the medical press, with the Royal Society, with the General Medical Council. Add to which, that he was always abreast, and sometimes in advance, of science, at those points at which it touches medical truth and sanitary law, and there will be no difficulty in understanding the loving respect in which he lived and the grief that such a life is over. In all relations Parkes made his mark. As a student he made an impression on his fellow-students, one of whom has recorded his indebtedness to Parkes in words which should be repeated here: "The desire to possess his esteem has been that which has encouraged me from my earliest student days. . . . He taught me, as a student, to desire knowledge for itself, to desire to be good in itself and for itself, and not for anything which might follow it." These are the words of Sir William Jenner, and they alone speak volumes as to the influence which Parkes has exercised on men and on medicine. It is an opinion of good judges that Parkes's influence at University College as a physician and professor of medicine was of the most important kind, and has not a little to do to-day with the efficiency of its teachers and its success as a school of medicine. During this period of his life, say from 1846 to 1855, he was in practice in London, living first in Upper Seymour-street, Portman-square, and afterwards in Harley-street. While living in Harley-street he was twice severely ill, once with pneumonia and once with phlebitis. The pneumonic attack had, we believe, some unpleasant indications of having a tubercular character. During this time he wrote very much for the medical press, especially for the *Medical Times*, and subsequently for the *Medical Times and Gazette*. He did not do much private practice in London. His powers of diagnosis were great, and his treatment of disease was very good. There can be little doubt that, had his health allowed him to remain in London, he would, with increasing age, have had a large consulting practice. Of late years we are informed that his opinion in consultation has been much sought in Southampton and its neighbourhood. It has been said in a contemporary that on the death of Dr. Baly, the appointment of physician to her Majesty was offered to Dr. Parkes. It would be more correct, we believe, to say that Sir James Clark gave Parkes to understand that but for the indifferent health of himself and Mrs. Parkes he would have offered him the appointment. But Sir James consulted Parkes as to the appointment. And how well Parkes advised him we all know. It is no slight testimony to the esteem in which he was held that her Majesty sent a message of characteristic kindness to him in his last illness.

In 1863 Dr. Parkes was elected, in succession to Sir Charles Hastings, as one of the representatives of the Crown in the General Medical Council, and it is no exaggeration to say that in this position Dr. Parkes made the happiest and most beneficial use of his great influence. His large and varied experience in different spheres and parts of the world, including his experience as a teacher, and as a member of the Senate of the Uni-

versity of London, was brought to bear on the questions arising in the Council as a Council of Medical Education. Oddly enough, the Council had been ten years in existence, as Parkes said in 1868, before it took any cognisance of the state and the methods of medical education in the United Kingdom. In a previous year he had very vividly demonstrated the insufficiency of the examinations of the licensing bodies by adducing instances of the ignorance of men whom they passed, brought to light by the Army Examining Board. In 1865 he suggested inquiry into the best means of supervising examinations. In 1868 appeared in THE LANCET his papers on medical education, urging the substitution of a more practical and tutorial system of teaching in place of the present. These papers, afterwards published in a separate form, received great attention, and led to the appointment, in the Council, of the Committee on Medical Education, which, after several years' work, and being more or less reconstituted, resulted in various practical recommendations to the licensing boards, the most important of which were adopted, such as the institution of class examinations in medical schools; that every student be required to serve the office of clerk or dresser; that therapeutics be taught separately from materia medica; and that the examining bodies should examine students clinically. Another result of the work of this committee was its unanimous recommendation of conjoint boards. Dr. Parkes was an eager supporter both of conjoint examinations and of the authority of the Council, and, with the military feeling of respect for authority, always argued that obstructive and recalcitrant bodies should be reported to the Privy Council. The lively collisions between him and Sir Dominic Corrigan on the question of reporting the Queen's University to the Privy Council will be well remembered by those who have watched the proceedings of the Council of late years. Many of the views of Parkes in regard to medical education were too advanced and too much opposed to traditional customs to be realised at once. But whenever serious attempts are made to make medical education real and efficient, Parkes's views will be studied, and to a large extent applied. Last year in the Council he distinguished himself as the firm and gallant friend of the ladies, in the discussion of a letter from the Lord President on the question of the admission of women to the medical profession. No member of the Council could be more missed than Dr. Parkes will be.

We have said nothing of the scientific work of Dr. Parkes, which of itself would demand a separate notice. It makes an essential part of medical teaching. His early experience in India, as we have said, led him to study dysentery, hepatitis, and cholera, and to make observations in regard to those diseases to which every good author refers with confidence. His account of the nature of the motions of cholera patients remains essentially uncontradicted. His book on the Composition of the Urine is full of good clinical observations, and doubtless led him up to some of his best physiological and pathological work. His Gulstonian Lectures on Pyrexia, published in the *Medical Times* in 1855, and his Croonian Lectures on Nitrogenous Elimination, in THE LANCET of 1871, are very learned and suggestive contributions. The Croonian Lectures especially, in support of the view that the liver is a chief seat of the formation of urea, is full of physiological and medical suggestion. Dr. Parkes's papers to the Royal Society, of which since 1861 he was an honoured Fellow, are so recent that we need do little more than name them. In 1867 and 1871 he contributed papers to the Transactions on the Elimination of Nitrogen during Muscular Action. In 1870, 1872, and 1874 his papers had reference to the effect of alcohol on the human body. The accuracy of Parkes's observations is admitted on all hands. Even those who did not like his conclusions admitted his extreme correctness. His conclusions have yet to be duly weighed. They go to show that many once fashionable views as to the *rôle* of highly nitrogenous food and of alcohol in diet were ill-based, and they have doubtless had much to do with that sensible revolution in practice which has quietly taken place.

Such is an imperfect account of Dr. Parkes's character, life, and work. We should not omit to say that at one time he was editor of the *British and Foreign Medico-Chirurgical Review*. The cause of his death, ascertained at a post-mortem examination made in accordance with his own wish, was acute tuberculosis. Miliary tubercle of evidently recent origin was found in lungs, liver, kidneys, peritoneum, &c. His illness extended over a period of four months. He was attended assiduously by Dr. Osborne, of Bitterne, and seen often by medical friends from London, including Sir William Jenner, Dr. Walshe, Dr. Russell Reynolds, Dr. Hermann Weber, &c. &c. His was a model life, full of work and full of honour. His physical strength was never great. Not long ago he sustained the loss of his wife, which may well have damaged a nature so sensitive and affectionate as his. On Tuesday he was buried by her side at Solehill, near Birmingham, a spot which henceforth will have interest for us all.

At University College, on Friday, Dr. Reynolds concluded the last lecture of his course on medicine with a sketch of the life and character of Dr. Parkes. After describing his early career there as a student, and later as physician and professor, and his work in the cause of humanity and of science both at home and abroad, Dr. Reynolds in ending thus summed up his character:—

"A man honest, earnest, and ingenious in his work; with love of truth, for its own sake and for the sake of man; untiring in his industry; unsurpassed in skill, whether in devising new, or in utilising and correcting old methods of inquiry; patient in research, and accurate in the statement of its results; with his eyes always open to new light, and a mind richly stored with all the knowledge of past labour in our own and in other lands; he served his profession and his country, and has left behind him works that will be referred to and employed for many years to come.

"But it would be to say little of Dr. Parkes to say but this. His character and conduct were such as to inspire those about him with a contagion of like activity; and though none may have been his equal, many have been stirred by his example to follow in his steps, and go on their ways with a vigour and honesty which carry with them their own reward.

"But still further, there was a beauty in his life which carried even those who knew him but casually and slightly into a new range of feeling, not merely of admiration, but of affection; and which, in all who knew him well, was transformed into a tender and venerating love.

"A former colleague of his said to me many years ago, 'Parkes has but one fault—if fault it may be called—that he cannot believe that there is anyone in this world not as good as himself.' Another early friend and colleague said to me quite recently, 'He was nearer to perfection than any man I ever met with.' A pupil of his, and one of my present colleagues, said to me some years ago, 'I never went round the wards of the hospital with Dr. Parkes without wishing to be a better man, and not only so, but I felt that I might become such.'

"No nobler testimonies than these can be borne to any teacher, any man. To create the desire for goodness, and to inspire the hope and belief that it may be approximated, even if not attained to the degree that he had reached, is that beyond which human character can scarcely pass. Not many hours before his death I told him of what my colleague had said, and his reply was, 'Thank you, very much; I cannot tell you how it cheers me.' And then he closed his eyes, and lay back upon his pillow, and said 'Farewell.' His face was calm and peaceful, and he said, 'I shall sleep.' I watched him for a few moments as he lay, with closed eyes and tranquil look, and thought that nothing so beautiful I had ever seen. White as the pillow on which his head was resting, there was more than ideal beauty in his face, for it was the real and still living clothing of the heart and mind of one whose memories of past and blameless life had given him perfect peace, and whose faultless heart was strengthened by, as he told me, his confident belief in the Eternal Life. In the combination of moral, mental, and physical beauty, Dr. Parkes was to my knowledge never equalled, to my belief cannot be surpassed. Pure as a sunbeam, strong as a man, tender as a woman, keen as any scientist to unravel the hidden mysteries of life in its minutest detail of chemical and physiological research, yet practical in the application of his knowledge to the cleansing of a drain or the lightening of a knapsack; he

made the world much richer by his life, much poorer by his death. I can wish for you nothing better in this world than to live as he has lived, honoured and beloved by all who knew him, and to die as he has died, to the sorrow of those whom he and you may leave behind, but yet a sorrow tempered and softened by the gratitude we ought to feel that "such as these have lived and died."

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on March 16th:—

Coumbe, John Batten, Plymouth.
Duke, George Amos, Harrow-road.
Goode, Charles Fox, Haverfordwest.
Porter, Thomas Lee, Exeter.
Nicholson, John Francis, Brigg, Lincolnshire.
Webster, Norman Peter, Burton-road, Brixton.
Williams, Richard, Cefn Cochgarn, North Wales.

The following gentlemen passed the Primary Professional Examination on the same day:—

Millice Culpin and John Philip Wagstaff, London Hospital; Henry Langley Webb, St. Mary's Hospital.

USEFUL GIFTS.—The "Manchester Guardian" states that Mr. W. Aronsberg, of Manchester, has presented a complete set of meteorological instruments, with thermometers for every ward, to the Manchester Royal Infirmary; and a handsome revolving stereoscope, with views, for the amusement of the inmates of the Barnes Convalescent Home. He has also distributed 300 cases of mathematical instruments to the 32 schools in connexion with the Manchester and Salford Sunday Ragged School Union, and other institutions of a similar description, as prizes for the encouragement of the more advanced pupils.

ST. BARTHOLOMEW'S HOSPITAL.—The annual general meeting of the Abernethian Society was held on Thursday, March 16th; Dr. Vincent Harris, president, in the chair. From the secretary's statement it appeared that there had been 19 ordinary meetings of the Society, with an average attendance of 31 members, that 56 new members had been admitted during the session, and that the balance in the hands of the treasurer is £73 3s. 1d. The following officers were elected for the ensuing year:—Presidents: Mr. Keetley, Mr. Macready. Vice-Presidents: Mr. Mills, Mr. Wharrey. Hon. Treasurer: Mr. Savory. Hon. Secs.: Mr. Darbishire, Mr. Pye. At the close of the meeting a vote of thanks, proposed by Dr. Herbert Taylor and seconded by Dr. Havilland Hall, was unanimously accorded to the outgoing officers.

NOXIOUS VAPOURS.—A few days ago a deputation from several associations in the north, for controlling the escape of noxious gases from manufactories, waited upon the President of the Local Government Board, to urge upon him the necessity of more stringent regulations, and suggested that Government should issue a commission to inquire into the cause of the failure of former Acts. The present system of inspection, they believed, was inadequate. Mr. Sclater-Booth, in reply, questioned the necessity for the issue of a commission. He said that his last attempt at legislation on the subject had met with a reception which was not encouraging, but he would endeavour to find a satisfactory proposal which he could pass through this year. He promised to communicate the desire of the deputation for a commission to the Government.

Medical Appointments.

ADAMS, G. N., M.B., L.R.C.S.Ed., has been appointed Medical Officer for the Rippingale District of the Bourn Union, Lincolnshire, vice Truman, resigned.

BRUNTON, J., M.A., M.D., L.F.P.S.G., L.M., has been appointed an Examiner in Midwifery and Medical Jurisprudence in the University of Glasgow.

CAMPBELL, W. M., M.D., M.R.C.S.E., has been appointed an Honorary Surgeon to the Northern Hospital, Liverpool, vice Graham, resigned.

COOPER, J. N., L.K.Q.C.P.I., and L.M., L.S.A.L., has been appointed House-Surgeon to the Pendleton Branch of the Salford and Pendleton Royal Hospital and Dispensary, vice Greville, resigned.

DIVER, T., M.D., has been elected Physician to the Infirmary for Consumption, Margaret-street, Cavendish-square, vice Cholmeley, resigned.

GEORGE, H., M.D., M.R.C.S.E., L.S.A.L. has been reappointed Medical Officer of Health for the Horncastle Rural and Urban Sanitary Districts.

GOWLAND, G. R., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Resident Assistant Medical Officer to the Crumpsall Workhouse, Manchester.

GRAHAM, J., M.D., C.M., has been appointed Medical Attendant to the Royal Irish Constabulary, Killough and Ardglass, vice Harrison, resigned.

GREENE, J. S., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the No. 3 District of the Newport Union, Salop, vice J. Greene, M.R.C.S.E., L.S.A.L., deceased.

HANCOX, W. M., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Bilston Urban Sanitary District, at £60 per annum.

KNOWLES, E. M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer and Public Vaccinator for No. 5 District of the Chesterton Union, Cambridgeshire.

M'DIARMID, Dr., has been appointed Medical Tutor at the University of Durham College of Medicine, Newcastle-on-Tyne, vice Reoch, deceased.

MARSH, E. A., L.S.A.L., has been appointed Junior Resident House-Surgeon to the Torbay Infirmary, Torquay.

MORISON, A., M.B., C.M., has been appointed Honorary Medical Officer to the Holloway and North Islington Dispensary.

NORTH, J. C., M.B., C.M., has been appointed Medical Officer to the Brecknock Union Workhouse, vice Armstrong, resigned.

PHILIP, J. A., M.B., C.M., has been appointed Resident Medical Superintendent of the Lincoln Lunatic Hospital, vice Walsh, resigned.

POWELL, E., M.R.C.S., L.S.A., has been appointed First Assistant Medical Officer to the Kent County Lunatic Asylum at Barming-heath, vice Davies, appointed Superintendent.

RENTON, J. C., M.B., L.R.C.S.E., has been appointed Assistant-Surgeon to the Glasgow Eye Infirmary, vice Watson, resigned.

SANDERSON, J. B., M.D., F.R.S., has been appointed an Examiner for the Natural Sciences Tripos, University of Cambridge.

SHEPPARD, W. A., has been appointed Apothecary to the County Infirmary, Kilkenny, vice Empson, resigned.

STEELE, J., L.F.P.S.G., has been reappointed Medical Officer of Health for the Ovenden Urban Sanitary District, at £50 per annum.

YOUNG, A., B.A., L.S.A.L., has been appointed Second Assistant Medical Officer to the Kent County Lunatic Asylum, Barming-heath, vice Wood, resigned, on being appointed Medical Superintendent of the Isle of Man Lunatic Asylum, Douglas.

Births, Marriages, and Deaths.

BIRTHS.

BAKER.—On the 17th inst., at Wimpole-street, the wife of Wm. Morrant Baker, F.R.C.S.E., of a son.

BREWER.—On the 8th inst., at Queen's-road, Dalston, the wife of Alexander H. Brewer, L.R.C.P.L., of a daughter.

BROMLEY.—On the 7th inst., at Castle Hedingham, the wife of John B. Bromley, M.R.C.S.E., of a daughter.

MCCLURE.—On the 11th March, at Worle, the wife of Thomas McClure, F.R.C.S.I., of a son.

MAHOMED.—On the 16th inst., at Norfolk-square, the wife of F. A. Mahomed, M.D., of a daughter.

SPENCE.—On the 4th inst., at Aberfeldy, Bournemouth, the wife of James A. W. Spence, L.R.C.P.Ed., Surgeon 40th Madras Native Infantry, prematurely, of a son.

TABUTEAU.—On the 5th inst., at Portarlington, the wife of Joseph M. Tabuteau, M.B., of a daughter.

MARRIAGES.

MURPHY—GUNNING.—On the 16th inst., at the Parish Church, Stranorlar, George Wyndham Murphy, M.B., to Kate, daughter of John Gunning, Esq.

WARBURTON—MELVILL.—On the 15th ult., at Baroda, Dr. W. P. Warburton, Bengal Army, to Harriet Emily, daughter of P. S. Melvill, Esq.

DEATHS.

BANKS.—On the 15th inst., at Southsea, George Fletcher Banks, M.R.C.S.E., Fleet-Surgeon R.N., aged 53.

BLOXAM.—On the 11th March, at Ryde, Isle of Wight, John Charlton Bloxam, Surgeon, aged 69.

COLLINS.—On the 17th inst., at Sherborne, Edwin Stephens Collins, M.R.C.S.E., aged 60.

COWPER.—On the 24th January, at Rokewood, Australia, Stewart Cowper, M.D.

CROOME.—On the 20th inst., at Middleton-Cheney, Robert Croome, M.R.C.S.E., aged 61.

DEWAR.—On the 18th inst., at Glasgow, Donald Dewar, M.D., aged 50.

EMPSON.—On the 12th inst., at Kilkenny, Richard Empson, L.A.H.D., aged 52.

GOSS.—On the 15th inst., at his residence, Sidmouth, Devon, after four years' protracted suffering, Samuel D. Day Goss, M.D., F.R.G.S., late of London, aged 46. Friends will kindly accept this intimation.

HUDSON.—On the 13th inst., at Walsingham, Peter Hudson, M.R.C.S.E., aged 54.

PARKES.—On the 15th inst., at Bitterne, Hants, Edmund Alexander Parkes, M.D., F.R.S., Professor of Military Hygiene, Army Medical School, Netley, aged 56.

PILKINGTON.—On the 11th inst., at Carrick, Queen's County, George Pilkington, L.K.Q.C.P.I., aged 48.

WELD.—On the 17th inst., at Hurstmonceaux, Sussex, George Henry Weld, L.R.C.P.L., aged 43.

WILCOX.—On the 16th, at Holly House, North Walsham, Norfolk, after many months' severe affliction, Emily, the dearly loved wife of W. Wilcox, L.R.C.P., M.R.C.S. Friends will kindly accept this intimation.

[N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.]

BOOKS ETC. RECEIVED.

Sir H. Thompson: Diseases of the Urinary Organs.
Dr. Harris: Lithotomy and Extraction of Stone.
Elsa and her Vulture.
E. E. Day: Exercises on Electrical Measurement.
Dr. Seguin: American Clinical Lectures.
Dr. Poore: Electricity in Medicine and Surgery.
Mr. Barry: Railway Appliances.
Bacon's Essays. Vols. I., II.
Dr. Sands: On the Causes of Gleet.
Dr. Eustace Smith: Clinical Studies of Disease in Children.
English Chess Problems.
Dr. Parry: Extra-Uterine Pregnancy.
On Fermentation. By F. Schützenberger.
Mr. Heathcote: Reminiscences of Fen and Mere.
Dr. Youmans: Class-book of Chemistry.
Proceedings of the Society of Public Analysts. Vol. I. 1876.
Mr. C. Heath: A Course of Operative Surgery. Part I.
Medical and Surgical Review (Australia). Vol. I.
Determination of the Refraction of the Eye with the Ophthalmoscope.
Dr. J. D. Hooker: Botany.
Thos. Annandale: The Pathology and Operative Treatment of "Hip"-Disease.
Lithotomy: its Successes and its Dangers.
Report of U.S. Marine Hospital Service, 1874.
Gray's Elegy, Milton's L'Allegro, Goldsmith's Deserted Village, &c.

Notes, Short Comments, and Answers to Correspondents.

TYPHOID FEVER IN HEALTHY DISTRICTS.

THE specific character of the poison which produces typhoid fever receives the strongest confirmation from the severe outbreaks that occur from time to time in some of the healthiest agricultural districts. The annual death-rate in the registration district of Glendale, in Northumberland, averaged only 15 per 1000 in each of the three decades of the thirty years 1841—1870, and has therefore always held a high place among the healthy districts of England. The last Quarterly Return of the Registrar-General, however, records a fatal outbreak of typhoid fever in Lowick parish, situated in this district. Lowick at the census of 1871 had a population of 1770 persons, showing a considerable decline from the number enumerated in 1861. During the three months ending 31st December last, 11 deaths from typhoid fever occurred in the village of Lowick, the outbreak being attributed by the registrar to imperfect drainage and impure water. We understand that two more fatal cases have occurred since the beginning of the year. Measured by the population of the parish, this outbreak has been an unusually fatal one, and its history would be a useful contribution to our knowledge of the generation of enteric fever. In such isolated outbreaks as that at Lowick it is important to ascertain whether the first case was apparently spontaneous, or whether any connexion with previous cases elsewhere could be traced.

Jucos.—Either may be obtained at Baker's, High Holborn; or Pillischer's, New Bond-street.

E. L. (Leipsic) wishes to obtain information of the "American Health Lift."

THE ROTUNDO HOSPITAL, DUBLIN.

To the Editor of THE LANCET.

SIR,—I venture to address those of our brethren who have studied at the above institution for their kind consideration of the appeal now being made by the Governors of the Rotundo Hospital.

In consequence of a diminished income, which is due to various causes—viz., the reduction of the Government grant to one-fourth of the usual amount, a falling off in the receipts from letting those portions of the building for public amusements, owing to the opening of other Assembly Rooms through the city, as also the great need for redecorating them,—the charity was in debt last year over £800. Money is greatly wanted to clear off this debt, as also to renovate the west wing of the hospital, commonly called the "Blind House," in which are the chronic wards for diseases of women. This portion of the building is very old, and must soon fall into decay unless a considerable sum is expended. The main building needs many sanitary improvements, such as erection of waterclosets &c. The roof of the entire fabric requires a large outlay. Lastly, the rooms alluded to previously require extensive repairs, involving a considerable outlay; some of these rooms have not been painted for fifteen years. If they were properly renovated, there is little doubt they would be extensively patronised by the caterers of amusement for the public, and thus largely add to the income of the hospital.

It would be a great pity to see this institution (founded in 1745), known over the world, languish for want of funds. A sum of £2000 is required to carry out the project. Of this, £800 has been in a fortnight's time subscribed. A small sum from each of the former pupils of this hospital, now practising in England, Ireland, and Scotland, as also those gentlemen in the public medical services, would amount to something considerable, besides being a graceful recognition from its former *alumni* of the benefits such an institution confers, not only on the suffering poor, but also on the medical profession.

Subscriptions, post-office orders, or cheques received by Jos. Mullen, Secretary, Rotundo Hospital, Dublin.

Your obedient servant,
ALBERT O. SPENDY,
Dublin, March 18th, 1876. Assistant-Physician, Rotundo Hospital.

BOARDING-OUT OF PAUPER CHILDREN.

MR. JOHN SKELTON, Secretary to the Poor-law Board of Supervision in Scotland, has recently issued a volume on the above subject, which contains facts and statistics of great importance as proving, in the opinion of the author, the success of the boarding-out system in Scotland. Mr. Skelton concludes that the plan, which has been in operation in the northern division of the kingdom for more than a quarter of a century, has been attended with most wholesome results, and has not been accompanied by any evil effects in the districts where the children have been located. Mr. Skelton, however, points out that the success of the system depends on a variety of conditions, among which may be mentioned the judgment with which the election of guardians is made, the thoroughness of inspection and supervision, the limitation of the number of children boarded out in each dwelling and in each parish respectively. He strongly insists on the necessity of spreading the boarded-out children over as large an area as possible, so that they may gradually be incorporated with the general population.

B.Sc.—Prof. Marshall's book (Longmans) or Carpenter.

SCOTCH POOR-LAW MEDICAL RELIEF.

To the Editor of THE LANCET.

SIR,—Recently a numerous and influential deputation of Scotch members of Parliament waited on Sir S. Northcote, Chancellor of the Exchequer, for the purpose of urging on him the justice of placing the Parliamentary grant in aid of Scotch medical relief on the same basis as that which exists in England and Wales and in Ireland. The deputation was introduced by Mr. M'Laren, who acted as chief spokesman, and the Chancellor had with him the Lord Advocate, Mr. Gordon, M.P. for the united Universities of Glasgow and Aberdeen. Mr. M'Laren pointed out in very forcible and effective language, not only the injustice of the present anomalous arrangement, but the expediency, in the interest of the sick poor and the public, of making a decided alteration. Sir S. Northcote, whilst admitting fully that the deputation had made out their case, stated that he was indisposed to take up the subject, except upon broad principles, and, quoting from the Report of the Select Committee on Scotch Poor Relief, which sat in 1869, '70, and '71, intimated that if a consensus of opinion among Scotch representatives could be secured, the Government, after conferring with the Lord Advocate and Mr. Walker, the Chairman of the Board of Supervision, would be disposed to legislate on the lines of that Committee's Report.

Since then I have observed that certain of the Scotch Parochial Boards have petitioned for an increase of the Parliamentary grant, but apparently for that only. It appears to me, then, necessary, if our Scotch medical brethren are anxious to remove their disabilities, that no time should be lost in petitioning the House of Commons thereon. With the view of facilitating such action, I beg to append a form of petition which covers the whole ground of the Committee's Report so far as relates to medical relief, and which, if secured, will place the Scotch Poor-law medical officer in a better position even than his southern *confrère*.

All that it will be necessary to do is to copy the form on one side of a sheet of paper, to sign it, and if the signatures of the resident landholders, of the clergy, and large ratepayers could be obtained, it would make it more effective.

To the Honourable the Commons of Great Britain and Ireland in Parliament assembled.

The humble petition of the undersigned Parochial Medical Officer, &c. &c.,

Sheweth,—That in the year 1869 and 1870 a Committee of your honourable House sat to consider the working of the Scotch Poor Laws. In 1871 the Committee agreed on their Report, and *inter alia* suggested radical changes in the administration of medical relief, which they had found to be wholly insufficient to meet the legitimate wants of the sick poor, and that up to the present no successful effort has been made to carry out the suggestions of that Report.

Your petitioner, therefore, prays your honourable House to take this important question into consideration, and to provide that every Parochial Board should be required to appoint a medical officer at an annual salary, exclusive of the cost of medicines, which should be provided at the cost of the said Board; that the medical officer should be removable from office by the Board of Supervision only; that the Parochial Board should be required to superannuate him in all suitable cases; and that the Parliamentary grant in aid of medical relief be placed on the same footing as in England and Wales and in Ireland.

And your petitioner will ever pray.

[Here the signature or signatures].

After copying this form and signing it, all that is then required to be done is to put round it a newspaper wrapper, headed Public Petition, and address it either to Dr. Cameron, M.P., House of Commons, Mr. M'Laren, Mr. Whitelaw, or any Scotch M.P. the petitioner may chance to know, for presentation.

In conclusion, let me point out that what is done should be carried out without one hour's delay. Yours obediently,

Dean-street, Soho, London, March 15th, 1876. JOS. ROGERS.

WEEKLY HEALTH RETURNS.

WE should very gladly support the suggestion if it came before the public in any authorised or official way. It is monstrous that people with infectious diseases in their houses should carry on business as if nothing were wrong in them, and without any protection to their customers. The very least they can be asked to do, with a view to the public good, is to report to the sanitary authority, who should prescribe the conditions under which alone business might be conducted.

CHRONIC URTICARIA.

To the Editor of THE LANCET.

SIR,—Could any of your readers advise a remedy for chronic urticaria? There is no manifest connexion with food. The patient, a male, aged sixty-three, has been in tolerable health all his life, and the appearance of the eruption is very irregular. Yours truly,

Shepton Mallet, March 16th, 1876. F. PORTER SMITH.

SPOTTED VEILS.

BESIDES the disadvantage of making young ladies look as though they were just recovering from the small-pox, spotted veils may exercise an injurious influence on the sight. If the fall retains its position steadily, there must be a perpetually unconscious endeavour to avoid the interposing obstacle to sight offered by spots immediately in the line of vision. If these move, the subjective result is a ceaseless flickering of opaque points before the retina in a manner, whether or not distressing, certainly injurious. It is no use flying in the face of fashion, but it may be worth while to point out that the wearing of these unsightly face-screens is not free from danger. Here and there perhaps a more than commonly sensible young person may take warning, and escape the contingent possibility by discarding an ungraceful appendage.

Chemist, (Edinburgh.)—Despretz, with a mixture of solid carbonic acid, liquid protoxide of nitrogen and ether, obtained a sufficient degree of cold to reduce alcohol to the viscous state.

THE communication of *Prof. Humphry* (Cambridge) shall be published in our next issue.

Enquirer.—He is entitled to a fee in the second case, not in the first.

PROPOSED CORPS OF FEMININE ATTENDANTS FOR MIDDLE-CLASS PATIENTS IN PRIVATE ABODES.

To the Editor of THE LANCET.

SIR,—I have read with interest a letter in your last number from a Mrs. Robinson on the above subject. The want for which that letter prescribes the remedy is one that all medical men must have felt. There are, however, difficulties in this proposed mode of dealing with it which will at once occur to the minds of all medical practitioners who give the matter any consideration.

Mrs. Robinson commences by deprecating the efforts which some ladies are at present making to enter the medical profession. This she does in a summary and hearty manner, which commands our respect, if it does not awaken our sympathy. These ladies are urged to give up the medical idea, and, instead, to follow the noble example set them by Miss Nightingale and Miss Lees. Your correspondent next proceeds to call attention to those interesting individuals called charwomen. It is these women that Mrs. Robinson proposes to utilise as nurses for the middle classes. They are to receive a certain amount of instruction, and then be used for the purpose indicated. This conclusion to a letter, which at its commencement seemed to promise so well, is somewhat disappointing. Where is the necessity to call in the charwoman to aid in the nursing? Surely there are ladies in the middle and upper classes who can take to nursing, if not as a means of subsistence, merely for the love of the thing. Nursing is no disgrace, and there is no reason why in this the age of progress the art of nursing should not be raised to its natural position, rather to be regarded as an honourable and ennobling profession than be relegated to the charwoman and the class of "Gamps" who at present flourish and grow fat in the homes of the middle classes. Such at least we know is the effort which Miss Lees and others are now making.

With regard to the question of supplying nurses for the middle classes, a serious obstacle presents itself. Let us imagine that the very best kind of nurse is available. Even supposing that the doctor's advice to procure a nurse was followed, and one of these nurses obtained, her usefulness in this class of the people would be, it is to be feared, seriously impaired by the jealousy of the female relatives, who perhaps would feel that she was usurping their place, and do all in their power to obstruct her. Her hygienic efforts, if not rendered nugatory by their ignorance, might be so by their jealousy. Such at least is my experience. Ladies of the middle class, as a rule, do not believe in the necessity of a training to make a nurse; in their idea it comes naturally, and such would consider that they were better capable of taking care of their brothers, husbands, or children than any number of trained strangers.

For my own part I know that the majority of ladies have no more idea of how to manage a sick-room than they have of flying. Many lives are lost through this mistaken, though somewhat amiable, self-sufficiency.

The same objection does not hold with regard to the poorer classes. The people are more cognisant of their failings, and no doubt also they are more apathetic; this very apathy, however, helps to reconcile them to the aid rendered by these nurses.

Here, then, seem to be the great difficulties affecting this proposal of providing nurses for the middle classes. Charwomen are not the material for nurses, and even if they were they would still be open to the other objection, which would also be raised against nurses of any kind.

Should it, however, appear to those who know the female sex better than I do that I am mistaken in thinking that trained lady nurses would be objectionable to them, I am perfectly willing to waive my objection, and do my best to aid in providing such for patients of the middle classes.

I remain, Sir, yours &c.,

W. H. KRETEVEN,
Hon. Sec., Holloway Branch of the Metropolitan and National Nurses' Association.

March, 1876.

To the Editor of THE LANCET.

SIR,—As I take a great interest in all that affects the profession of sick-nursing, and believe that it is one peculiarly, even solely, adapted to women, I read Mrs. Robinson's letter in your impression of last week with attention, the more so because in the first part of it there is much that is valuable. But when I read the following sentence, "As regards hospitals and open infirmaries, I think there is much exaggeration of the nursing deficiencies," it struck me she could not have had personal experience of hospital management, or this sentence would either have been modified or left out. When she advocates the theory that among "the habitual charwomen" it would be possible to "select individuals of sufficient intelligence, firmness, and integrity to be entrusted during the absence of the doctor with the moral control of capricious patients," that impression was confirmed. My acquaintance with the class of "habitual charwomen" is considerable, as is also my knowledge of "capricious patients," as well as the extreme difficulty of controlling them, even when that control is exercised by a woman of refinement, tact, and judgment. That it would ever be possible to educate the "habitual charwoman" in the latter two absolute requirements, I not only doubt, but deny. To do so would be beyond the skill of any teacher, and I think no good nurse—the only proper teacher—would ever undertake such a pupil. Nursing the sick is a duty requiring the highest intelligence, and I am certain that charwomen, even with the most "judicious drilling," could never be taught how to preserve "cleanliness and purity of air," such as ought to exist in the sick-room, involving, as it does, a knowledge of hygiene quite beyond their uneducated minds.

Further, I would ask Mrs. Robinson, granting the possibility of thus educating these women, has it occurred to her that to teach them how to control the "capricious patient" necessitates having such patient upon whom to practise, as technical teaching without it would be useless, particularly to women whose education is too defective to enable them to utilise theory without practice? The need for more training schools for professional nurses is already felt. Where, then, is to be the school for the charwoman?

While making these remarks, I am fully alive to the very great need of the class for whom Mrs. Robinson pleads—i. e., the middle class,—and I know only too well the extreme difficulty of procuring for them what the poorest sick people enjoy so freely in hospitals, the best nursing. But I would venture to suggest to Mrs. Robinson a method of helping this class to procure the same advantages. Suppose every family in that position of life were to subscribe to a "Benefit Club" which shall undertake to supply them with proper nurses at a reduced payment during the time of their need, such a scheme could, I feel sure, be set on foot by combination on the part of the subscribers, aided by some of those many "ladies of great ability and social influence," who are always ready to give their help where it is needed. I cannot but think that Mrs. Robinson herself must be among their number.

As regards the "keep" of the nurse, surely Mrs. Robinson is in error when she says it is "too costly." I am well acquainted with what is necessary food for nurses, as well as what is supplied to them by hospitals and nursing institutions, and I think no one receiving the comfort, even blessings, which a good nurse gives freely and unselfishly to her patient should begrudge her the very plain and simple food which is all that is necessary for her to have. Sickness in a household always brings trouble and expense; but it is the worst economy to try to save expense in the most important necessity—the good professional nurse,—without whom the cleverest physician is crippled in his efforts for the good of his patient.

I am, Sir, yours obediently,

Horsell, Woking Station, March 20th, 1876. ZEPHERINA P. VEITCH.

Mr. Thos. Bowley.—1. The prescription itself is the property of the patient, to use as he pleases, and "in his wisdom," which often proves to be his folly.—2. We are not aware of anything in law or equity to prevent a chemist from copying or repeating a prescription. If the chemist is the appointed agent of the prescriber, the case would be different. In such a case the chemist is bound to respect the prescriber's wishes.

Medicus.—Certainly not, if the attendance has been solely through an unqualified agent.

TYPHOID AND DISTEMPER.

To the Editor of THE LANCET.

SIR,—In the letter from Mr. J. W. T. Moore in your last issue there are one or two errors which need correction.

1st. The drains in immediate connexion with the house had been thoroughly looked to some time previously, and were all in good order and well trapped. The offensive smell mentioned by Mr. Moore must have arisen from some cause outside of the premises, possibly in connexion with the main sewer in the street, and could therefore have had no more influence on the coachman than on any other person passing by. Surely Mr. Moore should know also that exposure to sewer gas or any other offensive smell, when charged with the specific poison, could not alone produce typhoid. Moreover, not a single case had occurred in the neighbourhood for years previously, and the sewers, it may be presumed, must therefore have been free from specific matter. The other person attacked did not even visit the coachman at the house, but at the stable, a considerable distance away. It must not be forgotten also that he did not see the coachman after the time the stench was experienced; that both were attacked within a day of one another, and that they lived in entirely different parts of the village.

2nd. I know not upon what ground Mr. Moore says that Mr. B. "quitted the house on account of its defective drainage"; but I venture to assure him that he is entirely mistaken in his supposition. His reasoning generally, and especially with regard to the antecedents and susceptibility of the patients, savours rather of the advocate searching in vain for evidence to save his own client.

Unless the disease was generated in the dog, and from the dog conveyed to these men, its source must still remain a mystery; for up to the present time the neighbourhood has continued entirely free from the disease.

I am, Sir, yours faithfully,

March 20th, 1876. H. H.

F.R.C.S. Eng., L.R.C.P. Lond.—An examination in State Medicine will shortly take place in Cambridge University, particulars of which may be obtained by applying to Dr. Paget. We cannot advise our correspondent in the other matter further than to watch our advertising columns.

Dr. Boinbaum.—We regret we cannot do so.

IS DENGUE VISITING ENGLAND?

To the Editor of THE LANCET.

SIR,—I should like to ask through your columns if any of your readers have met with a run of cases which seemed to partake of the nature of rheumatism with slight fever, some cases with an uncertain eruption, some cases with only painful limbs and no eruption, most of the cases having the latter symptoms? If this description agrees with the symptoms of any epidemic in a particular district, I shall feel greatly obliged by a report of it in THE LANCET.

Several cases bearing more resemblance to dengue than anything else I ever saw, and certainly not being cases of either acute rheumatism, chicken-pox, measles, scarlatina, or herpes, having occurred in the neighbourhood in which I reside, I feel very anxious to know if others have noticed a similar disease.

Yours obediently,

March 13th, 1876. A. D. C.

BEST COPY A

THE FACTORY ACTS.

THE Royal Commission on the Factory and Workshops Acts, in their Report just issued, make various recommendations of a more or less important character in relation to the occupation of women and children. Amongst other conclusions, the Commissioners declare their opinion that the employment of children and young persons should be forbidden in occupations tending to destroy health, such as silvering of mirrors by the mercurial process, and white lead manufactures; girls under sixteen should not be allowed to work in brickmaking or in salt works; children should not be allowed to work at occupations unsuited to their ages, such as fustian cutting, metal grinding, glass melting and annealing, and dipping lucifer matches; and that the residence in barges and canal boats of female young persons and of children over three years of age should be forbidden.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—Will you allow me to address myself in a few sentences to those of your readers who are interested in our department?

I can hardly set myself to my task more directly than by strongly recommending to their attention the editorial remarks which from time to time have appeared in THE LANCET, the general bearing of which is to the effect—1st. That previously guaranteed privileges as to forage and all material appendages of relative rank should be restored. 2nd. That some steps should be taken to accelerate promotion, and to approximate its progress in these days to what it was, or to an average of what it was, from the beginning of this century up to the outbreak of the Crimean war. 3rd. To induce retirement by a more liberal scale of retirement pensions, or by a system of bonus allowances, as in the artillery and engineers, and, if necessary, by compulsory retirement at sixty from the administrative ranks.

The first point, as to the restoration of privileges guaranteed by former Warrants (and especially by that of 1858) seems so much in accordance with the ordinary principles of action which in public as in private relations we sum up in the word "honesty" that it need hardly be insisted upon.

The second point, as to promotion, is more complicated, and the difficulty in understanding its importance has been greatly increased since the confusion of titles conferred upon us by the Warrant of March, 1873. I ask your readers at present to separate this question from the merits or demerits of the system called "unification," and from the grievances more or less substantial which have become associated with its introduction. Unification is a great measure; it is a measure intended for the welfare of the service, and it is not yet an accomplished fact; but it has become unfortunately mixed up in the minds of men with grievances not necessarily associated with it. With promotion, however, all will confess that it has nothing to do, and there can be no doubt that the present stagnation of promotion demands more urgently than all besides that something should be done to remove it. To understand the bearings of this point, it is only necessary to glance at one of Hart's Yearly Army Lists. It will then be seen that all the administrative officers now in the department obtained their first step of promotion in from nine to eleven and a half years, and that those who are now senior surgeon-majors obtained their first step in a still shorter time. This, however, which may be considered a fair and normal rate of promotion, necessarily became upset by the enormous additions to the numbers of the department rendered necessary by the Crimean war and the Indian mutiny in 1854, '55, '56; so that promotion from this time gradually became more slow until in 1873 it was granted as a boon to upwards of seventy medical officers who had not been promoted after fifteen years of service, and since that time there have been several runs of the same forced promotion to batches of medical officers of more than fifteen years' service. The effect of all this has only been to confer a tardy benefit upon the men who have been promoted. It has reversed the relative proportion in number of the senior to the junior rank, but it has done little to establish a natural flow of promotion. The stagnation of promotion, the abnormal state produced by the Crimean war, can only be remedied by granting an abnormal and exceptional retirement to meet it; and so also with regard to the Indian mutiny. But there can be little doubt that if a certain number of retirements were offered after twenty-two years, or after twenty years, to counteract the influx I have referred to, such spasmodic efforts as have been lately made to give promotion after fifteen years would be no longer necessary, and promotion would again attain its natural flow. Promotion is comparatively of small importance at home; but in India, where it means increase of pay by more than a half, and where one sees Indian medical officers promoted after twelve years' service, and enjoying their large pay, it is of very great consequence indeed.

As to the third point of my letter—viz., to induce retirement from the administrative ranks by a system of bonus allowances &c., to enforce compulsory retirement after sixty years of age, there can be little doubt as to its acceptability or its justice.

In conclusion, I cannot help thinking that to apply the supply and demand principle to the medical officers of the army, and to say that if they cannot be got on the present terms they must be tempted by higher, is a mistake. It is not enough to get a good article if the goodness of its quality be not also durable, or if it be placed in such conditions that it cannot possibly continue good; and especially does the argument apply if the article be of such a texture or applied to such purposes that it may become rotten and unreliable, with small possibility of the acutest observer detecting the change.

I remain, Sir, yours &c.,

India, Jan. 20th, 1876. M.D. BOMBAY.

WORLD REGISTRATION.

IN the last Weekly Return the Registrar-General announces that he is now able to add Stockholm to his list of large foreign cities for which he publishes weekly mortality statistics. This list now includes 26 cities, situated in all the four quarters of the globe. Stockholm has an estimated population of 142,766 persons, and the 84 deaths registered during the week ending 4th inst. were equal to an annual rate of 30·7 per 1000. The importance of this national interchange of mortality statistics can scarcely be over-estimated.

Mr. Henry Smith's letter shall appear next week.

THE SMALLEST PRAYER-BOOK IN THE WORLD.

WE noticed not long ago the smallest Bible in the world, and we have now to call attention to a companion to that work in the shape of the smallest Prayer-book in the world, a copy of which has been forwarded to us from the Oxford University Press Warehouse, Paternoster-row. It is a complete miniature Prayer-book, weighing just under an ounce. It is printed on India paper, and measures only three inches and a half in length and a quarter of an inch in thickness. The type, of course, is small, but clear, and for diminutive size and portability we do not think it is likely to be surpassed.

America.—1. It is not popular.—2. Not fairly remunerative, except in a few instances where there are opportunities for working a good private practice.—3. There is no pension, and we believe no leave of absence.

E. S.—There is no such special institution in Europe, so far as we are aware.

"ON SOME EFFECTS OF LUNG ELASTICITY IN HEALTH AND DISEASE."

To the Editor of THE LANCET.

SIR,—In the report of the discussion on Dr. Douglas Powell's paper at the Royal Medical and Chirurgical Society in your impression of the 18th inst., I am reported to have said "that in many cases in which there was a large tumour or collection of fluid in the abdomen, with displacement of viscera upwards, and consequent diminution of the thoracic cavity, there was yet no dyspnœa or evidence of embarrassed breathing." This scarcely represents the tone and accuracy of my observations, which were to the effect that it is remarkable how differently the lungs behave under apparently the same set of circumstances; how in some instances they escape pressure, and how readily they recover their elasticity after pressure has been exerted upon them. I endeavoured to illustrate my argument by mentioning three classes of cases.

1. Where there was moderate distension of the abdomen, and yet the superior border of the liver might extend as high as the third rib, and the colon float in fluid immediately below it. Obscure breathing and dulness are present in the lower lobes of the right lung, sometimes in the left also. The temperature, pulse, and respiration are normal, and the patient can breathe without discomfort or dyspnœa in any position.

2. Where the distension is considerably greater, and a tumour weighing from 7 lb. to 8 lb., and 35 pints of fluid, are removed at the time of operation. The three first intercostal spaces are distinct; all the rest are obliterated, and pressed out like a fan, though the lower lobes of the lungs are only slightly involved, and there is a small quantity of recent effusion in one or both pleuræ. The temperature, pulse, and respiration are normal, and the patient can lie down and breathe in any position.

3. Where the abdominal distension is much greater. I mentioned the details of a small, thin, spare woman, whose abdomen measured 54 inches, and yet she could lie with comfort in the recumbent posture, and the pulse and respiration were normal. Healthy breathing could be heard from the apex to the base of each lung; the percussion note was resonant, and there was no pleuritic effusion. At the time of operation, 45 pints of fluid and a tumour weighing between 8 lb. and 9 lb. were removed. Neither cough nor dyspnœa preceded or followed the operation. I added that it was difficult to account for this tranquillity of respiration, or how it was that trifling effusions should sometimes cause dyspnœa and cripple the lung, whilst larger effusions now and then gave rise to no such inconvenience. The restricted movement of the lower ribs and the widened and paralysed intercostal muscles might be partially due to long inaction through stretching of the abdominal cavity from the gradual increase of its contents, though I could not explain why a less distended abdominal cavity should sometimes give rise to effusion or pulmonary distress. One explanation was to be sought in the gradual way in which the pressure is exerted, and the tendency of the abdominal parietes to yield in those persons who have borne children, so that the action of the diaphragm being less interfered with, the elasticity of the lungs is preserved.

I am, Sir, your obedient servant,

Manchester-square, March 21st, 1876. W. H. DAY, M.D.

COMPOSITION OF AN INTESTINAL CALCULUS FROM A HORSE.

THE *Pharmaceutical Journal* publishes the results of an examination by Mr. Tuson of a concretion extracted after death from a horse. The following are the particulars:—

The calculus weighed 3 lb. 12 oz.; it had a brown colour throughout, was nodulated, and generally resembled in its external appearance the so-called "mulberry calculus" of man. It is composed partly of organic and partly of mineral matters. These surround a nucleus consisting of a somewhat angular pebble about the size of a pea, and the mucus and other animal substances present unite the whole of the ingredients together into a globular mass. The subjoined table shows the result of the quantitative analysis of the calculus:—

Water (moisture)	51·93
Organic matter (hair, oat-husk, mucus, &c.) ...	10·72
Ammonium-magnesium phosphate	29·00
Sand	5·53
Salts soluble in water (sulphates and chlorides of sodium, potassium, calcium, and magnesium) ...	2·82
	100·00

Enquirer.—The "eruptive fevers" of the Roman Registrar-General are variola in its different forms, scarlatina, also in its different forms, and measles (including rubeola). These are the main causes of the infant mortality which yields exceptionally high returns in Rome. Strangers, classifying typhoid among eruptive fevers, naturally conclude from these returns that that formidable malady is epidemic in the Eternal City. Such, however, has at no time been the case. Sporadically, typhoid sometimes prevails; but then it is almost invariably imported. Water, the channel of conveyance of typhoid, is supplied to Rome in greater purity and abundance than to any other city in Europe. It is a pity that, in the interests of Rome as a place of residence, her Registrar-General does not adopt some less fallacious mode of classifying the death-rate—separating, for example, the returns of the Campagna from those of the city, and specifying more distinctly the different kinds of fever that prevail.

T COPY AVAILABLE

PRUDENTIAL ASSURANCE COMPANY.

THE Annual Report of this Office (which is in the main industrial) brings to light some extraordinary figures, proving the interest already taken by the masses in the subject of life assurance. The general results as detailed in the Report are stated as follows:—"The total premium income is £870,408 3s. 4d., being an increase of £182,919 14s. over the past year. The claims amount to £366,917 13s. 7d., raising the total sum to £1,507,313 12s. The assurance fund is £702,194 13s. 6d., showing an increase of £128,660 10s. 7d. for the year." This Company are now issuing policies at the rate of about 35,000 per week.

Mr. H. W. Davies.—We cannot hold ourselves responsible for rejected communications.

Dr. M. G. Evans.—It is a matter of no special import either way.

MR. HARDY'S SCHEME.

THE following extract is taken from a letter addressed by a medical officer to a relative, which has been forwarded to us for publication:—

"I got my order this morning. They give me £94 to find my own passage, and tell me to start immediately. The Liverpool steamer sails on April 22nd, and I shall probably go in her. M—— and the children remain here. On every rupee I send home to them I shall lose 4d. and a fraction—3s. 9d. in the pound, nearly 19 per cent. Nice that, isn't it? Mr. Hardy and his new scheme have simply played the devil with us who are now in the department. It would almost pay me to chuck up and begin under the new rules. It seems hard that we who have borne the burden and heat should receive the penny only, while the eleventh-hour fellows are to get twopence. They are to get promotion in twelve years, and here am I going on for thirteen, and without any prospect of it."

THE publication of the letter of *Dr. Handfield Jones* is necessarily postponed till next week, in consequence of the time requisite to produce the blocks containing the tracings which accompany the communication.

A Constant Reader must consult a medical practitioner.

CAUTION TO MEDICAL MEN.

To the Editor of THE LANCET.

SIR,—A middle-aged, stout, rather elderly-looking woman, called yesterday, and engaged me to attend a lady in her approaching confinement. On calling to-day at the address given, I found four or five other medicos had been hoaxed in a similar manner, and I fear, like myself, robbed of a great coat or other articles of value while in the waiting-room.

Yours truly,

Bedford-square, March 21st, 1876. SAMUEL RICHARDS, M.D.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Humphry, Cambridge; Dr. J. E. Pollock, London; Dr. Handfield Jones, London; Prof. Longmore, Woolston; Mr. Maunder, London; Mr. Jabez Hogg, London; Mr. Farquhar, Pudsey; Mr. Croxton, London; Dr. Fothergill, London; Dr. Hoggan, London; Mr. Wilson, Penistone; Mr. Maycock, Leamington; Mr. Howley, St. John's, Newfoundland; Mr. Webb, Glasgow; Mrs. Veitch, Woking; Dr. Reynolds, Brixton; Dr. Cane, Peterborough; Dr. Charteris, Glasgow; Mr. Hall, Lincoln; Mr. Smith, Shepton Mallet; Mr. Elsworth, London; Dr. Boinbaum, Wiesbaden; Mr. Cæsar, London; Mr. Browne, West Bromwich; Mr. Hobgood, London; Dr. Walker, Watford; Mr. Turner, Burmah; Mr. Thomas, Madras; Mr. Sewill, London; Dr. Diver, Kensington; Mr. Davies, Brompton; Mr. Berry, Wigan; Mr. Owens, Long Stratton; Mr. Wharry, London; Dr. Sands, New York; Messrs. Getzmann and Co., London; Mr. Cannon, London; Mr. Wylds, Camberwell; Dr. Lee, Washington, U.S.A.; Mr. Graig, Utica, New York; Dr. Carr, Blackheath; Mr. Phillimore, Snenton; Dr. Brewer, London; Dr. F. Robinson; Dr. Richards, London; Mr. Tate, Chatham; Mr. Bird, Lytham; Dr. Morison, London; Dr. Evans, Cardiff; Mr. Robinson, Bedford; Mr. Phelps, Crediton; Mr. Marsh, Sheffield; Mr. H. Richardson, Birmingham; Mr. J. Graham, Peterborough; Mr. C. Chatfield, Leeds; Mr. Wallis, Hertford; Dr. Horfield, Calcutta; Mr. H. P. Lewis, Bristol; Dr. Day, Geelong; Mr. H. A. De Lantowe, Otago; Mr. Bright, Glastonbury; Dr. M'Gregor, Fiji; Dr. Somer, Tenby; Dr. Thomson, Manchester; Dr. Harris, London; Dr. Day, London; Dr. Morris; Dr. Brantou, London; Mr. Whalley, Bradford; Dr. Capton, Stratford; Mr. Robottom, Birmingham; Dr. Hyatt, Shepton Mallet; Mr. Cotton, Chichester; Mr. Powell, Brentwood; H. H.; America; Over Twenty Years' Service; Rara Avis in Terris (Omnibus); E. S.; L.R.C.P. Lond.; E. L., Leipzic; Amo; Medicus; An Old Soldier; Enquirens; Observer; Obstetricus; Testis; A Public Vaccinator; A Constant Perusor; S. Q. P.; Enquirer; Z. Y. X.; A. B., Broughton; M.R.C.S. Lond.; H. C. W.; D. V.; B.Sc.; M.R.C.S., Eastbourne; A. W. D.; E. T.; M.R.C.S.E.; E. M.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Dr. Talbot, Bow-road; Mr. Allen, St. Helens; Mr. Edmunds, Appleby Magna; Mr. White, London; Mr. Rayner, Brentwood; Dr. Blythman, Swinton; Mr. Leslie, Kensington; Mr. Goode, London; Mr. Hall, Liverpool; A. B. C., London; A. J., Bradford; A.M.; R. E. M.; A. B., Llantrisant; T., Sheffield; L.F.P.S., Bishop Auckland; J. R. W., Kimberley; G. C., Petersfield; T., Dalking; Medicus, London; A. B., Ladywell; Junius, Edinburgh; L.R.C.P., Oldham; J. C. J., Spalding; Recipe, Glasgow; X. Y. Z., Preston; W. T. M., Manchester; Delta; T. C. C.; Beta, London; M.D., Hadlow; F. B., Bristol.

Western Morning News, Local Government Chronicle, Manchester Guardian, Newcastle Chronicle, Welshman, East London Observer, Cork Constitution, Birmingham Morning News, Surrey Advertiser, Metropolitan, Wrexham Advertiser, Public Health, Nottingham Guardian, Glasgow Weekly Mail, Record, Southport Daily Chronicle, South Wales Daily News, and *The Age* have been received.

METEOROLOGICAL READINGS

(Taken daily at 9 A.M. by Steward's Instruments.)

THE LANCET OFFICE, MARCH 23RD, 1876.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 9 A.M.
Mar. 17	29·72	N.W.	33	38	...	46	34	...	Overcast
" 18	29·99	N.	35	37	...	42	31	...	Fine
" 19	29·96	N.E.	...	32	...	35	28	...	Snowing
" 20	30·07	N.	...	33	...	40	29	0·10	Overcast
" 21	29·96	N.W.	...	33	...	39	30	...	Overcast
" 22	29·90	E.	...	33	...	41	29	0·13	Overcast
" 23	29·96	N.	34	36	...	...	31	0·07	Overcast

Medical Diary for the ensuing Week.

Monday, March 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Mr. Henry Smith (adjourned), "On some Manifestations of Syphilis and their Treatment."—Mr. J. Knowsley Thornton, "On the Surgical Aspect of Pelvic Hæmatocele."

Tuesday, March 28.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. Geo. Thin, "On Histological Changes in Cancer of the Skin or Epithelioma."—Dr. Cavafy, "On the Pathological Anatomy of Syphilis."—Dr. Gowers, "On the Development of Spindle Cells in 'Nested Sarcomas.'"

Wednesday, March 29.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Dickinson, "On the Pathology and Relations of Albuminuria."

Thursday, March 30.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, March 31.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Habershon, "On the Pathology of the Pneumogastric Nerve."

Saturday, April 1.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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